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St. Bartholomew's Hospital Journal,

DECEMBER 14th, 1896.

"Æquam memento rebus in arduis
Servare mentem."—Horace, Book ii, Ode iii.

A Visit to Falkenstein im Taunus.

A Health Resort for Consumption.

By HENRY RUNDLE, F.R.C.S.

AMONG the characteristic features of German life are the watering places and health resorts which are studded over the country. There is very little quackery. Instead of dosing himself with pills and patent medicines, the anxiety of the German for his health takes a sensible form; and he "takes his cure" at one of these places by dieting himself, drinking sundry daily glasses of waters, and living in the open air as much as possible. There are several places with medical establishments for the treatment of those suffering from diseases of

the lungs. Those at Nordrach and Falkenstein are the best known. Holiday travel took me a few weeks ago through Frankfort, where I halted for a day, as I was anxious to visit the "Curhaus" at the latter place. A railway ride of forty minutes brought me to Cronberg, a distance of twelve miles. The railways in Germany, most of which are State property, are decidedly slow, but very safe. Slow speed, with the risk of mishap reduced to a minimum, is better, says the German, than the momentary advantages of rapid travel. Cronberg is an idyllic place, and well deserves the name of "Crown of the Mountain." A drive of about four miles, passing the residence of the Empress Frederick, brought me to the "Curhaus." This has an elevated position, 1300 feet above the sea level, on the southern slope of the Taunus range. Few places in Germany have such surroundings—pretty enough to attract the ailing and the healthy alike. To arrive there is to feel that the beauty of the place must contribute to your well-being. The valley is protected on the west, north, and east, and open toward the south-east. On each side rise mountains, clad with firs and chestnut trees, which enclose a lovely view over the broad valley of the Main, dotted with towns and villages, and the plains of the Rhine district in the distance.

The Curhaus, which is surrounded by well-kept grounds and woods, consists of a main building, its two wings joining at an obtuse angle, so as to enclose a large terrace, and two annexes united to the main building by covered promenade galleries, opening towards the south. In direct communication, on the east side, is a large dining-hall, in which 200 persons can be comfortably seated. On the ground floor are drawing, music, and reading rooms, and a well-stocked library. The place is provided with all the comforts and luxuries needed for invalids.

The terrace enclosed by the wings of the main building has an especially protected situation, along which extend covered verandahs provided with curtains, so that even the weaker patients may be able to remain in the open air from morning to night. Similar structures and revolving pavilions are situated near the building, and serve the same purpose.

In these and the verandahs are placed cushioned, cane sofas, which enable the patients to carry out in comfort the main part of the treatment, namely, prolonged sojourn in the open air. The institution has a plentiful supply of excellent water derived from springs on the slope of the hill beyond, and a good system of drainage constructed by an English engineer. With reference to the climate, the air is pure and free from dust. I was unable to ascertain the percentage of moisture. The variations of temperature are rarely great or sudden, and there is no perceptible fall at sunset. The evenings are characterised, almost the whole year round by stillness and an even temperature. I was told that there is much warm sunshine in winter, enabling people to be out of doors a great part of the day. But Falkenstein is not merely a winter health resort like Madeira, or the towns on the Mediterranean coast. Experience has shown that the treatment may be carried out with equally good results in summer and winter. The Curhaus is open all the year, and the beneficial influences of climate and treatment are felt at all seasons.

As to the course of treatment. The main factor is the utilisation of fresh air. This is carried out, for the weaker patients by resting on the sofas, and for the stronger ones by additional general exercise, combined with breathing exercises. Regular rubbing, dry or with alcohol or water, and cold douches, are applied by trained nurses. The object of this is to increase the natural action of the skin, and to harden the system against the changes of temperature. The diet is a liberal one, with plenty of milk, which is obtained from a farm belonging to the institution.

The daily round of life is rather monotonous. If the temperature is raised, the patient is sent to bed and kept there until it falls. For those who have no fever, first breakfast is taken from 7.30 to 8.30, then a walk in the garden till 10 o'clock, when second breakfast is served. Then out of doors or lying down until dinner at 1 o'clock. After dinner lying down until 4 o'clock, when milk is taken. Supper at 7.30, and bed from 9 to 10. The fact that tuberculosis is a contagious complaint, and that every effort must be made to defend against its germ, is strongly impressed on all the inmates. No one is allowed to expectorate except in the spittoons containing antiseptics, which are placed in the house and grounds, or else in a small glass receptacle which is carried in the pocket. Tubercular milk is guarded against by frequent bacteriological examination.

I have had two cases which have been treated at Falkenstein, and am well satisfied with the results; both in a marked manner have benefited by the change.

Mr. O. D—, æt. 21, had severe hæmoptysis in March, April, and May, 1892, with cough, expectoration, and night sweats, dulness over apices of both lungs, with moist sounds on left. At Falkenstein from December, 1892, to June, 1893. Weight on admission, 9 st. 10 lbs.; on leaving,

11 st. Since then has been free from cough and all symptoms of lung trouble. When I last saw him (August, 1896) he was quite well, and enjoying outdoor sports and amusements.

Miss M. A—, æt. 17. Father died from phthisis. Had several intercurrent attacks of hæmoptysis in 1894; well-marked physical signs at left apex. Went to Falkenstein in September, 1894, and returned home in May, 1895. Weight on admission, 8 st. 5 lbs.; on return, 11 st. 3 lbs. A second visit of three months early in 1896. She writes me that she is "very strong and well, keeping quite a normal temperature."

In each of these cases hæmoptysis was the first symptom to attract attention. This alarmed the patients and their friends, and caused them to act promptly in seeking change of climate. It cannot be too strongly urged, if change of climate is to be tried, that it should be done early. Consumptives are often sent away in the later stages of illness, too late for sun and air to work their wholesome charms.

How change of climate works as a curative agent in phthisis is still uncertain. The late Dr. Hilton Fagge writes, "on the whole it seems likely that the good effects of change of climate depend partly upon its improving the general health and increasing the resistance of the organism to the further progress of the disease, partly upon its protecting the patient from fresh attacks of bronchial catarrh." I think that Falkenstein meets these conditions, and when the disease is taken in the early stage, I believe that treatment there, will often work a cure.

I must acknowledge the kindness of Dr. Karl Hess, the senior resident physician, for devoting a morning to showing me over the place, and also for much information which he placed at my disposal. The result is this short account, which may be instrumental in introducing Falkenstein and its Curhaus to some Bart.'s men, and possibly through them to consumptive invalids.

With the Baluch-Afghan Boundary Commission.

By Surgeon Captain F. P. MAYNARD, I.M.S.

THE following brief account of four months spent in crossing the Baluchistan Desert, is the result of a hint from our editor that the experiences of the medical officer of a Boundary Commission might be interesting.

The Commission, under Captain McMahon, C.I.E., consisted of five British officers and a survey party, with an escort of a hundred rifles and twenty-five sabres. We left Quetta on January 27th, 1896, and after meeting the Afghan Commissioner and his party at Khwájha, where a full dress durbar was held for the occasion, the first few weeks were spent demarcating along the Khwájha Amrán and Sarlat ranges of mountains as far south as Nushki. The hills were covered with snow, our camp was generally at an elevation of over 6000 feet, and the cold was intense. The minimum thermometer registered 15½° below freezing-point; bath water, if left, was always frozen solid in the morning, and even the soda water froze, at first only on opening the bottles, but when it became still colder

it froze in the bottles without opening. From Nushki the route lay across sandy plains and barren rocky mountains as far as Robat; and from there we skirted along the northern foot of successive barren mountain ranges, crossing immense gravel plains separated by sand-covered mountains as far as the Koh-i-Malik Siah—the hill where Persia, Baluchistan, and Afghanistan meet,—a total distance of about 1000 miles. Sand-hills is a totally inapplicable term, as they really are rocky mountains that have gradually become covered deeply by sand. Water and vegetation were very scarce in such desolate regions, as may be imagined, and more than once we had to travel a hundred miles with water only to be found in one place along the route. Water had to be carried on camels in between, of course. Every one had to be mounted up on camels for the last 500 miles of the journey, partly on account of the difficulty in getting fodder and water, and partly because camels are the only animals fit to travel over such sandy desert. The heat during the second half of the mission was even more intense than the preceding cold had been. Shade temperatures of 110° to 115° were common—taken in an observatory tent which we carried for the purpose, and which also came in very useful as an operating tent,—and the solar radiation thermometer several times reached 205° , the highest the instrument was able to rise to. Sand-storms and dust-storms occurred daily, and were very annoying. They generally occurred in the daytime, though sometimes during the night. On account of the intense heat and scarcity of water marching was done at night, and we halted during the day to obtain such rest as the "dust-devils," flies and heat, would permit. The duties as medical officer were not heavy, and chiefly consisted in seeing that every one actually got the ration of lime juice and sugar served out, in treating slight cases of fever, sore feet, &c., and in keeping up a few returns. There were very few inhabitants in the country, and those met with were—after leaving Nushki—all nomadic, living in blanket tents. But wherever we halted more than a day or two numbers of them came in for treatment, and some interesting cases were seen. 1275 patients received treatment, and forty-one operations were done. Among these there were nine senile cataracts, six operated upon without and three with iridectomy. One of the latter gave a poor result. In it the iris was adherent to the lens capsule in places, and the scoop and iris forceps had to be used in extracting the lens. The rest of the extractions, including one (without iridectomy) in both eyes, did very well.

Five vesical calculi were removed, one by litholapaxy and four by lateral lithotomy, from patients varying in age from five to eighty years. The dry calculi (all uric acid) varied in weight from $6\frac{1}{2}$ to 268 grains. The fragments of the one crushed in a man twenty-six years old weighed 110 grains. One man, aged eighty, was broken down in health, had alkaline urine, a large prostate, and a sacculated bladder. The dry fragments of his stone weighed 245 grains. We carried him a great distance along with us, and left him at the main camp at Robat, where he recovered. All the other cases did well too. Among the other operations were five iridectomies for leucoma, incision and drainage of a cystic tumour in the orbit, causing severe proptosis, removal of a bullet from the sole of the foot, removal of a supernumerary thumb, and a plastic operation for a buccal fistula, the result of an old sword-cut. The last case came from Kandahar. The original wound had divided the nose completely, and both upper jaws partially, extending from below the outer angle of the right eye across to the angle of the lower jaw on the left side. He had stitched the left half up himself with a needle and thread, and, on the sixth day after, reached Quetta, where the civil surgeon sewed up the nose and the rest of the wound. This portion healed well (so much for science!) but his own attempts failed; the wound reopened, and for three years he had a fistula in his cheek, admitting the index finger, and allowing food, drink, and saliva to escape. Three days after the operation the hair lip-pin used was removed, but on the sixth day he was so pleased with himself, he went away without having the five horsehair sutures removed, probably thinking a few hairs more or less in his cheek made no matter. A sowar (trooper) of the Sindh Horse (our cavalry escort) was kicked on the knee by one horse whilst riding another. The joint was torn open. Treated on a Macintyre splint, and with iodoform and alembroth gauze. After syringing out with perchloride lotion the wound healed without suppuration, and the man recovered, with a joint that showed no signs of having been damaged.

Diseases of the eye were commonest, though many cases of malaria with enlarged spleen and scurvy were met with. Considering the desert nature of the country, and that the people rarely, if ever, eat vegetables of any kind, it is rather to be wondered at perhaps that more severe scurvy was not seen. Much milk, goat's and camel's chiefly, is drunk by the people, and that may save them. One case

of rickets was seen in a baby. It is a very rare disease in India. This child's mother had died, however, and it had been fed on *karut*, or dried ox-gall, *i. e.* the dried curd from buttermilk. This is almost as hard as nutmeg, and is used by the nomads in their milk or to soften meat in cooking. Several sepoys got scurvy in spite of the lime-juice ration, and two cases were severe, the men getting oedema and hæmorrhages. All recovered eventually.

One or two curious customs we came across. Ground glass is a common application in cases of ophthalmia, with results more easily imagined than described. Still, as it has continued to be used, we can but suppose that it must prove useful in some cases. Moxæ are in common use. To relieve pains in his legs, a man will have a hole made, and a piece of rounded hard wood inserted and kept in place by a bandage until it has formed for itself a smooth granulation-lined cavity, and he contentedly wears this wooden plug for years. For enlarged spleen they burn deep holes in the skin over it, and very unsightly multiple scars are commonly to be seen as the result. As the spleens seem to derive but little benefit from this heroic counter-irritation, the magic virtue of our iodide of mercury ointment in similar cases can be but slightly due to its blistering powers. Poultices of cow-dung (where there are cattle, camel-dung elsewhere) are common as in India. Couching for cataract is done occasionally, but with even less success than in India judging from the few results seen.

Impotence is another disease for which one is consulted, and, like most Oriental races, the people try every sort of abomination and filth, hoping to obtain an aphrodisiac effect. The favourite drug appeared to be an oil distilled by heat from living lizards, and the pains taken by our followers, &c., to collect and cook these unfortunate animals in large numbers showed that they, at any rate, believed thoroughly in the potency of the oil. Unfortunately the majority of the natives attributed our zeal in collecting to a similar ambition, and I doubt if any explanation about museums and scientific results satisfied them.

Near the Persian frontier a man aged about sixty was met with suffering from a direct left inguinal hernia. It had come suddenly while lifting a heavy weight four years previously. He was branded with red-hot iron the same day, and the four deep scars testified to the efficiency with which this was done. He had severe pain and vomiting at once, but the same day his brother managed to push the hernia back, and made a truss for him, which I found him wearing. It consisted of a circular thin flat iron disc, three inches in diameter, with a narrow thin rim of iron a quarter of an inch broad, riveted on to its deeper surface with two rivets. To this surface was bound a pad of camel's-hair felt, thicker at one edge. The truss was fastened on to the body with four pieces of plaited cotton rope, three-eighths of an inch thick and three and a half feet long, tied on to the truss at four opposite points. The truss was applied with the thicker edge of the felt pad downwards. The man passed two of the ropes upwards and twice round his waist, while the other two he passed backwards, one on each side of the scrotum, and fastened on to the circular rope behind. The neat way he reduced his rupture and slipped the thing on would almost have satisfied Mr. Langton. The truss acted fairly well when he stood up. I measured him, and sent him a good truss out from Quetta by the head of his tribe, after showing the latter how to use it.

Before leaving Calcutta I had arranged to collect for the Royal Botanic Garden at Sibpur, for the Geological Survey of India, and for the Indian Museum; and Dr. Alcock, of the Museum, kindly sent a taxidermist with us. Thanks to this and the enthusiastic help of Captain McMahon and the other officers of the mission fairly large collections were brought back, containing some new species. There are two new species of snakes as far as the examination has gone, christened by Dr. Alcock, *Vipera McMahonii* and *Lytorrhynchus Maynardi*. The papers on the collections are now appearing in the *Journal* of the Asiatic Society of Bengal and the *Records* of the Botanical Survey of India. The sport we had was, in places, excellent. In Shorâwak (Afghan territory due south from Kandahar), where we halted ten days while boundary disputes were being settled, there was capital small-game shooting all along the Lora River. Various kinds of grouse (imperial, sand), partridge (chalcote), teal, duck, &c., and in large numbers the lesser Indian Bustard (*obara*), with a capital B, as he's capital shooting and capital eating. After leaving Nushki we had several excellent runs after foxes, "jacks," and "gâd" (antelope) with some Afghan greyhounds we had with us. And there surely can be nothing finer or more exhilarating in the world than a hard gallop across the dead level plain, such as we frequently had in February in the early morning through the delicious champagne-like rarefied air of Baluchistan. The heat and horrors of the desert that came after are all forgotten in such memories.

We were very anxious to obtain a wild ass, and saw many. Previous Boundary Commissions had failed, and so did we. They are splendid-looking animals the size of large mules, salmon-pink in colour, with black cross-markings, very swift and wary, travelling in herds enormous distances to find fodder, and making for the gorges in the hills where there is water in the evening. Then or in the early morning, is one's only chance of shooting them, but though we tried often we never succeeded in bagging one. The Afghans told us that even if caught young they are difficult to tame, and useless as draught (?) or baggage animals, as their skins are too tender and chafe too easily. In the different hills we saw many, and shot a few, ibex and orial, while tracks of markhor were seen but no animals shot.

Returning by much the same route, we reached Quetta and civilisation on May 29th, 1896. It is noteworthy that within a few days of giving up the open-air life to live in civilised houses all the members of the mission caught severe colds, though one would have thought that sleeping and living out in the open air would have inured us to all draughts.

It may be mentioned that our experience of the value of sugar (as such or in the form of dates), in enabling one to undergo severe physical exertion, supported Dr. Vaughan Harley's views. Sugar, indeed, has much value in the eyes of the natives of India, and when superintendent of the Patna Opium Factory I found that the coolies working there have received a special sugar allowance from the beginning (probably) of this century to enable them to perform the very hard work they have to do in great heat.

To be quite up to date we took with our mess aluminium cooking pots and a soda-water machine, both of which worked admirably, and contributed largely to the healthiness of all.

The Plague in England.

*Being part of a Paper read before the Abernethian Society,
on October 15th, 1896,*

By W. LANGDON BROWN, M.A.,

Assistant Demonstrator of Biology.



WE were recently reminded by Dr. Gee, under the figure of Apollo and Python, of the victories which medicine had won in the past over "many pestilences which once defiled this fair land of ours: leprosy, ague, plague, dysentery, cholera, typhus, and smallpox." Some of these have been but scotched, and from time to time raise their heads ominously. Here I wish to bring before you a brief account of a victory complete so far as Europe is concerned; a serpent not only scotched, but slain.

The plague is a disease which has been known under several names—the black death, the pest, the botch, the Levantine or bubonic plague. How dire was its onslaught is hinted by the significant fact that it has so often been simply termed *the plague*. Of all the specific fevers it was the most fatal. In a recent epidemic at Bagdad 55 per cent. of the cases died, and in the Volga epidemic of 1879, 90 per cent., some villages being literally exterminated. At Eyam, in Derbyshire, 74 per cent. of the entire population perished.

If you turn to Clifford Allbutt's *System of Medicine*, you will find the following definition of plague: "An acute infective febrile disease accompanied by inflammation of lymphatic glands, partly miasmatic, partly communicable, caused by a micro-organism, the *Bacillus pestis*." Plague so closely follows the type of diseases due to micro-organisms that, although the bacillus was only found in 1894, by Kitasato, at Hong-Kong, its existence has long been suspected,—longer, in fact, than in any other disease, for Athanasius Kircher, in 1658, suggested that it was due to little worms so small and subtle that they escape every sense, and can only be detected by the most exquisite microscope. He believed these little worms to work their mischief by the elaboration of a poison. Here we have in brief the modern doctrine of micro-organisms and their toxins. But Kircher shows his modernity further by maintaining, in face of the prevailing belief, that a man cannot contract plague by imagination or fear alone, but that they only predispose "by condensation of spirits." To-day we should say "by lowering of resistance," and be no wiser.

This view was of course too advanced for his age. Dr. Hodges, one of the physicians appointed by the Royal College of Physicians

to investigate the plague of 1665, confesses, with submission to so great a name, that he could never discover them, and humorously suggests that as the sky of Italy is brighter than in England, Kircher, who studied at Rome, was at an advantage. Dr. Mead, writing in 1720, states the supposition was grounded on no sort of observation. No direct observation, perhaps, but it was grounded on a profound observation of general biological conditions—a species of research in which Dr. Mead, whose tastes led him to give his few spare hours to books rather than to biological experiments, was not skilled. A contemporary and friend of his, Thomas Quincy, though devoid of Mead's learning, makes remarks which show more insight. He compared the process to fermentation, and had a clear idea of the toxic element in this and other infective disorders. Even Diemerbroeck thought it might be due to secret malignant and virulent seeds, consisting of very subtle and isolated particles; still the view has but recently gained general acceptance, and even in 1891 we find Dr. Creighton dogmatically enunciating that it involves a total disregard of the facts to consider plague as due to a species of lowest vegetable organisms: to regard it as breeding true is the "merest verbalism." "One has to figure the virus of the black death," says he, "not so much as carried by individuals from place to place in their persons . . . or clothes, . . . but rather as a leaven which had passed into the ground, spreading hither and thither as if by polarising the adjacent particles of the soil." Alas for the pitfalls of analogy! what is leaven but a species of low vegetable life? Does Dr. Creighton disbelieve in the existence of the yeast plant? And alas for the triumphs of the "merest verbalism," for the micro-organism predicted by Kircher in 1658, hinted at by Quincy in 1720, and so strenuously denied by the positive Creighton in 1891, was found by Kitasato in 1894, as already said, "a short rod with rounded ends, resembling the bacillus of chicken cholera," and fulfilling all Koch's requirements.

To state that the disease is due to a particular bacillus does not of course exhaust its pathology. The conditions under which it flourishes may be more conveniently considered after a brief review of its history, more especially with reference to England. The first great outbreak of plague was in the reign of Justinian, A.D. 542. There is a tradition of an epidemic in Libya in the third century B.C., or even earlier, and Aretæus speaks of *βομβάνες λοιμώδες*. But the great plague of Athens, so vividly portrayed by Thucydides, appears not to have been bubonic, but scarlatina maligna; while that at the time of Marcus Aurelius, described by Galen, seems to have been smallpox. You will find the story of this first epidemic of plague in Gibbon's stately page: "The fatal disease which depopulated the earth in the time of Justinian and his successors first appeared in the neighbourhood of Pelusium, between the Sorbonian bog and the eastern channel of the Nile. From thence, tracing as it were a double path, it spread to the east, over Syria, Persia, and the Indies, and penetrated to the west along the coast of Africa and over the continent of Europe. . . . The infection was sometimes announced by the visions of a distempered fancy, and the victim despaired as soon as he had heard the menace and felt the stroke of an invisible sceptre. But the greater number, in their beds, in the streets, in their usual occupations, were surprised by a slight fever,—so slight, indeed, that neither the pulse nor the colour of the patient gave any signs of the approaching danger." He then goes on to describe the symptoms of the disorder and its spread, and says, "In time its first malignity was abated and dispersed, the disease alternately languished and revived; but it was not till the end of a calamitous period of fifty-two years that mankind recovered their health, or the air resumed its pure and salubrious quality. No facts have been preserved to sustain an account, or even a conjecture, of the numbers that perished in this extraordinary mortality. I only find that during three months, five, and at length ten thousand persons died each day at Constantinople; that many cities of the East were left vacant, and that in several districts of Italy the harvest and vintage withered on the ground. The triple scourge of war, pestilence, and famine afflicted the subjects of Justinian; and his reign is disgraced by a visible decrease of the human species, which has never been repaired in some of the fairest countries of the globe."

Probably this wave of pestilence broke upon our shore. Certainly during the next century there was a great epidemic in Britain and in Ireland. Bede tells us how it more than decimated the monks at Jarrow, until he, then a boy in the monastery, alone was left to help the abbot in the antiphonies and responses. The land relapsed into the barbarism from which it was slowly emerging, and even London was left deserted and in ruins. Whether this was due to war or pestilence may be open to doubt; both views have been maintained. Dr. Norman Moore has pointed out to me the interesting circum-

stance that St. Paul's Cathedral is built right over what must have been one of the main thoroughfares of Roman London—Watling Street, which could hardly have happened if the City had been continuously occupied. An early life of Fechin of Fore, an Irish saint, who died in 664, states that a great plague was the cause of his death, of that of the two reigning kings, and of a vast number of people in the same year.

From this time till the Black Death of 1347 we have no clear history of bubonic plague in England. Famine pestilences abounded—two bad harvests consecutively were sufficient to exhaust the resources of the country, which had no adequate means of importation or storage. England was a byword for her famine-pestilences, as was Normandy for leprosy, and France for St. Anthony's fire or ergotism. Creighton points out the significant fact that this last disease, "which is the truest index of an inferior diet, . . . had little or no place in our annals of sickness." It shows at least that the peasantry were not dependent on the bad rye-bread which seems to have been the staple diet of feudal Europe.

The Black Death of 1347-9 was the most fearful epidemic of bubonic plague which this country has known. Its very name, though of later date, suggests its virulence, for the hæmorrhages under the skin are only seen in the most malignant types of the disease. Another symptom was severe hæmorrhage from the lungs, which, in most epidemics a rare complication, was here very common.

Arising in the far East, the pestilence poured into Europe by the usual trade routes—Bagdad, the Crimea, Aden, and Alexandria. At Caffé, in the Crimea, the Tartars were besieging the Genoese settlement, when the black death broke out among the assailants. With brutal cunning they, "by the aid of the engines of war, projected the bodies of the dead over the walls into the city," spreading the disease so rapidly as to almost exterminate the garrison. It reached Italy early in 1348 through Genoa and Venice. Of its ravages in Florence a vivid and truthful picture is to be found in Boccaccio: Petrarch's Laura died of the plague at Avignon. Rolling through France, the wave of pestilence seems to have divided, one going to Normandy, the other eastward to Calais. It was the western wave which broke on our shore first, reaching Weymouth in August, and spreading over the western counties before the end of the year. At Bristol, says Knighton, "died, suddenly overwhelmed by death, almost the whole strength of the town, for few were sick more than three days, or two days, or even half a day." The contagion spread so rapidly throughout the land, that to follow its course accurately is impossible. London was reached, from one source or another, some time in the month of October. The mortality was so severe that new burial-grounds had to be opened: one on the site of the Minories; another in West Smithfield, between the gates of this Hospital and St. John's Gate, which is still standing in St. John's Lane; the third on the site of the Charterhouse. Oxford suffered terribly; here we are told, on the authority of a contemporary Chancellor of the University, there were 30,000 scholars assembled. "The school doors were shut, colleges and halls relinquished, and none scarce left to keep possession, or to make up a competent number to bury the dead" (Wood). The plague pit was dug, according to Thorold Rogers, in some part of New College garden. Nor was East Anglia less afflicted. Dr. Jessopp estimates that during the year ending March, 1350, more than half its population had been swept away. At Cambridge the plague pit was probably opposite St. John's College. "When the foundations of the new Divinity School were being laid," says Thorold Rogers, "I saw that the ground was full of skeletons, thrown in without any attempt at order, and I divined that this must have been a Cambridge plague pit." Dr. Jessopp extracts an interesting point from the Court Rolls. "On 28th of April, 1349, a dispute was set down to be adjudicated upon by the steward and a jury of the homage. It was a dispute between a husband and wife on a question of dower . . . The dispute was never settled. Before the day of hearing came on every one of the wife's witnesses was dead, and her husband was dead too." A pilgrim from Spain told a tale even more startling. "After supping with his host (who with his two daughters and one servant had alone so far survived of his entire family, and who was not then conscious of any sickness upon him) he settled with him for his entertainment, intending to start on his journey at daybreak, and went to bed. Next morning, rising and wanting something from those with whom they had supped, the travellers could make no one hear. They then learnt, from an old woman they found in bed, that the host, his two daughters and servant had died in the night. On hearing this the pilgrims made all haste to leave the place" (Gasquet).

Well might the people have said, "The Angel of Death is abroad in the land; you can almost hear the beating of his wings." England was left desolate and silent: memorials of that calamity are still seen

in the architecture of the land, in noble works never finished, or completed in a later style. The western towers of St. Nicholas, Yarmouth, have remained unfinished ever since those days. War with France was suspended for sixteen years. Half the entire population had perished, and the social effects were profound. The poor were generally most affected. "And no wonder," writes Professor Thorold Rogers, "living as the peasantry did in close unclean huts, with no rooms above ground, without windows, artificial light, soap, linen; ignorant of certain vegetables, constrained to live half the year on salt meat." But the educated classes did not escape, the mortality among the clergy being very severe. There was a great dearth of students at the Universities, and from the King's address to the bishops we learn that Oxford, once the home of learning, had become "like a worthless fig tree without fruit." As we look out to-day across the rural landscape it is interesting to remember that the hedges which are so conspicuous a feature originated at that date, the tenancies having to be split up into fields to make farming a success. For labourers were hard to seek, they were wandering off in search of better conditions, and the restrictions laid on them by the Statute of Labourers were inadequate to check them.

There is an amusing example of the old proverb, "The devil was sick, the devil a monk would be," in the fact that during the black death the dice manufacturers found that to do any business they must convert their dice into paternosters. But no sooner had the scourge passed away than there was an instance of Niebuhr's aphorism, "Almost all great epochs of moral degradation are connected with great epidemics." Piers Plowman tells us of the great declension of morals "sithen the pestilence." Father Gasquet, a scholarly writer on the Black Death, said in 1893, "It is a well ascertained fact, strange though it may seem, that men are not as a rule made better by great and universal visitations of Divine Providence. It has been noticed that this is the evident result of all such scourges; or, as Procopius puts it, speaking of the great plague in the reign of the Emperor Justinian, 'whether by chance or Providential design it strictly spared the most wicked.' So in this visitation, from Italy to England, the universal testimony of those who lived through it is that 'it seemed to rouse up the worst passions of the human heart and to dull the spiritual senses of the soul.'" A neater example of the absurdity of this horrible theory of Divine visitation it would be hard to find.

From the time of the Black Death till the great plague of 1665 the disease seems to have been periodically epidemic in Britain; always smouldering, it occasionally burst into conflagrations throughout the fifteenth and sixteenth centuries. The plague of 1464 was said to have been foretold. "A boy at Cambridge, while walking in the lane between King's College and the adjoining building of Clare and Trinity Halls, met an old man with a long beard, who addressed him thus:—'Go now, and tell to anyone that within these two years there will be such pestilence and famine and slaughter of men as no one living has seen.' Having said this he disappeared." It says something for the growth of scientific scepticism that doubts were at once cast on this story.

The sweating sickness, of which we hear a good deal in the years following the battle of Bosworth, can be clearly differentiated from plague, and was very probably a severe type of influenza. We hear the last of it in this form in 1551. Whereas plague always started with the poorer classes—so much so, indeed, that it was commonly called the "poor's plague"—the sweating sickness was most prevalent among the better classes; nor, as a rule, did these diseases appear in the same year. The great advances which this country made in Tudor times naturally led to more stringent regulations for the check of plague, but for a long time apparently without effect. Anthony Wood records thirty outbreaks of plague in Oxford during the sixteenth century "which led to great decline in the learning and morale of the place," "occasioned, as 'twas thought," says Wood, "by the overflowing of the waters, and the want of a quick passage for them from the ground: also by the lying of many scholars in one room or dormitory in almost every hall, which occasioned nasty air and smells, and consequently diseases."

The epidemic of 1563 largely affected the neighbourhood of this Hospital. "The worst locality," says Dr. Jones in his *Dyall of Agues*, "was St. Sepulchre's parish, by reason of so many fruiterers, poor people, and stinking lanes, as Turn-again Lane, Sea-coal Lane," &c. Turn-again Lane owed its name to the fact that it ran straight down to the Fleet ditch, from which there was no other method of return. The Fleet ditch, as you are probably aware, ran outside the western wall of the city, along what is now Farringdon Street, and entered the Thames at Blackfriars. Its filthy condition was clearly believed to play a part in the epidemic of 1593, and a memorial was prepared to get it stopped up; it was shown to have

been in the centre of the most infected district, and it was urged that "it is no material defence for the city, and half the ditch has been stopped these many years."

London had, in fact, long outgrown its primitive walls, and the sanitarians of Tudor times strenuously opposed its further extension. From the time of Richard I to Henry VII it was a mediæval walled city, with a population of from 40 to 50 thousand. Outside the walls were a few parishes, and on the west a wide thinly populated suburb, formed, in 1393, into the Ward of Farringdon Without, which reached to Holborn Bars and Temple Bar. This outlying district had similar privileges to the City, and was referred to as the Liberties. The City walls had Ludgate and Newgate on the west, and turning just south of the Hospital, ran along the route now indicated by London Wall; and its northern gates were Aldersgate, the small Cripplegate, Moorgate, and Bishopsgate. On the east was Aldgate and the small postern gate just by the Tower, where the wall terminated. Just outside Moorgate was the Moor—a great fen, the sanitary condition of which was a dangerous nuisance to the City. Its situation is still indicated in the name Moorfields.

Henry V was one of the first to show great care of the public health. Probably he remembered the Moor as a danger to be avoided after copious libations at the "Boar's Head," Eastcheap; Mistress Quickly's sack had a way of obscuring the points of the compass in the royal mind. Be that as it may, one of his first cares was to attempt to drain the Moor, and have roads laid down over it to the neighbouring villages of Islington and Hackney. But it was not till the time of Henry VIII that regular sanitary measures were taken. A certain level of plague was tolerated, but as soon as the infection became hot the well-to-do fled to the country.

In 1543 the following rules were put into force:—The sign of the cross was to be put on all infected houses, with the inscription "Lord have mercy upon us;" convalescents were to carry a white rod for forty days after, to mark them; all straw in their houses burnt, and all clothes "cured;" beggars were to be kept out of churches, and dogs were to be kept indoors, as infection was believed to be carried in their hair. The streets and lanes were to be scavenged and flushed.

Elizabeth went further—infected houses were to be shut up for forty days, no swine were to be kept within the City walls, and Simon Kellwaye published (1593) a code of rules which should be observed by all inhabitants. The Queen herself retired to Windsor during epidemics, and protected herself thus: "a gallows was set up in the market-place of Windsor, to hang all such as should come there from London." No false feminine weakness for Queen Bess!

By this time the Liberties were much more crowded than the City itself. Freed from many of the restraints there enforced, outside the walls was a maze of dark and tortuous alleys, a paradise of jerry-building. Thus the old City became encircled by a fringe of all that was foul and unwholesome, and it was clear that many epidemics started in these outlying noisome slums. Elizabeth made gallant attempts to stem the evil; no new houses were to be built within three miles of the City walls, subletting was made a misdemeanor punishable by law, but all in vain. London has steadily gone on growing, according to some "a wen on the face of civilisation," and the end we see not yet. William Morris's

"Dream of London, small and white and clean,
The clear Thames bordered by its gardens green,"

seems more visionary than ever.

Elizabeth's efforts were so far unavailing, that some years after her death we find the City, formerly the residence of the better classes, falling into the fate of Canongate, Edinburgh; its mansions turned into tenements, its gardens and churchyards built upon. Meanwhile the suburbs of Westminster, Lambeth, Newington, and Stepney began to rise into importance,—the last being from the first and for many years a highly fashionable suburb—a description hardly applicable to the Stepney of to-day. The following approximate numbers will give an idea of the growth of London in Tudor and Stuart times. At the time of the Reformation the population was about 60,000; a few years after the accession of Elizabeth, 90,000; eight years before the Armada, 120,000, and five years after it 150,000. At her death in 1603 it numbered about a quarter of a million,—that is to say, during her reign of forty-five years it increased two and a half times. In spite of the turmoil of the civil wars we find it has again nearly doubled itself in 1662, being nearly half a million.

The Stuart epoch is marked by three great outbursts of plague and its final extinction. These outbursts occurred in 1603, 1625, and 1665. The epidemic of 1636 did not affect London very greatly, and it is these three alone that we need stop to discuss.

The best account of the plague of 1603 will be found in Thomas Dekker's book, *The Wonderfull Yeare 1603, shewing London lying Sick of the Plague*. Beginning in the suburb of Stepney, it spread over the City and Liberties, destroying between March 10th and December 22nd over 33,000 persons. It coincided with grave changes in the State: Queen Elizabeth died a fortnight after the outbreak, and James was to make a triumphal entry into London; but a mightier monarch than he was already enthroned there, so the King stayed his course at Hatfield. "Every house," says Dekker, "lookt like St. Bartholemew's Hospital;" many that "would have been glad of a bed in an hospitall, and dying in the open fieldes, have been buried like dogs. . . . Never let any man aske me what became of our phisitions in this massacre—they hid their syndicall heads as well as the prowdest. Galen could do no more than Sir Giles Goosecap;" and so on in the approved euphuistic mode. The flight to the country seems to have infected the neighbourhood of London more than was usual, Croydon and Enfield being particularly visited.

This plague was the occasion of one of the earliest English medical writings on the disease. Thomas Lodge, novelist, poet, and physician, published his treatise during the fatal year. His best remembered work will probably be not his medical writings, but his novel, *Euphues' Golden Legacy*,—and that not because of its intrinsic merits, considerable though they be, but because his picture of Rosader and Rosalind and the forest wooing inspired Shakespeare to write his immortal *As you Like it*. How closely Shakespeare followed the story, and how enormously he lifted it by his genius, will be seen by any who compare the two.

As for his treatise on the plague, we may note that he was one of the first to raise his voice against the barbarity of shutting up the infected houses in the way usually adopted. "For in truth it is a great amazement, and no lesse horror, to separate the child from the father and mother, the husband from his wife. . . . For to speake the truth, one of the chiefest occasions of the deathe of such sicke folke (besides the danger of their disease) is the fright and feare they conceive when they see themselves voyde of all succour and, as it were, ravished out of the hands of their parents and friends, and committed to the trust of strangers."

For several years after this there was a slight annual outbreak; the playhouses were closed as soon as the mortality had reached a certain point, and reopened when the deaths fell to thirty a week. This gives us an idea of the way in which a certain endemic level of plague was tolerated and regarded as natural. But in 1625 the smouldering fires burst out again. The previous summer had been very hot and dry; the winter was mild. On February 25th an exceptionally high tide flooded the riverside parts of London, filling Westminster Hall "full three feet in water all over." It will not be regarded, I hope, as an extravagant suggestion that this tide washed up into the town excreta, contaminated with the plague virus, which the scanty flushings of the previous dry year had left on the mud-banks. Within a fortnight four deaths had occurred from plague, and the infection then spread in almost geometrical progression, culminating in 4463 deaths in the week ending August 18th, and then sinking down again, ended with the year. Allowing five days for incubation, and remembering that the third to the fifth day is the most commonly fatal, this places the deaths eight to ten days after the high tide, and we know from the bills of mortality the patients were buried within a fortnight of February 25th. So the suggestion has at least a colour of probability.

The total number of deaths in this epidemic was from 40 to 50 thousand. The literature is not extensive. Almost the only utterance of at all a professional nature was from the pen of one Stephen Bredwell, of Oxford, who obtained the L.R.C.P. in 1594. This work I have not personally consulted, for, according to Creighton, it is merely a shameless advertisement of "his 1s. powders and 2s. 6d. electuaries." But Dekker again wrote on this epidemic—a fact I have not seen referred to in the literature of the subject; his pamphlet is entitled *A Rod for Runawayes*, and is a castigation of the rich who sought refuge in flight, leaving the poor without a helper. This, in the then unorganised state of charity, was undoubtedly a serious matter. "How shall the lame and blinde and half-starved be fed? They had wont to come to your gates; alas! they are barred against them." He further twits them with being unwelcome visitors: "The country-people stand there with halberds and pitchforkes to keepe them out; . . . if they spy but a footman (not having a russet sute on, their own country livery) they cry, Arme, charge their pike-staves before he comes near the length of a furlong; and stopping their noses, make signes he must be gone, there is no roome for him to revell in, let him packe." He goes on to tell how some Londoners

one Sunday morning essayed to walk across the fields to Kentish Town, but were seen by the worshippers in St. Pancras Church, who came out and drove them back to the town. He also remonstrates with those who conceal cases of plague to escape the restrictions, thinking to cheat the Almighty, but, as he quaintly hath it, "His arithmetick brookes no crossing." Of the deserted state of London we get a vivid picture. "The walks in Paul's are empty; the streetes in London too wide (here's no justling)." George Wither also tells us in his wearisome poem on the subject—*Britain's Remembrancer*—

"The walks are unfrequented, and the path
Late trodden bare, a grassie carpet hath."

This latter carries his view that the epidemic is a Divine judgment to such particularity as to suggest it is due, among other factors, to—

"Some imperfections
In burgesses and their elections!"

The plague of 1636 was not so extensive, nevertheless 10,400 deaths were reported. Heberden tells us it began in Whitechapel. And now with one final outburst the plague was to leave our shores for ever. Let me tell the story of its beginning in the language of its greatest observer—Thomas Sydenham.

"After an extremely cold winter, and after a dry frost that lasted without intermission until spring, and which then unexpectedly broke up in the early part of the year 1665, peripneumonies, quinsies, and all such inflammatory diseases suddenly caused a great mortality. At the same time an epidemic appeared, which was wholly different from the continued fevers that prevailed during the preceding constitution." As to the progress of the epidemic we must turn elsewhere, for Sydenham joined in the flight to the country. The College of Physicians appointed special physicians who agreed to stay in London and grapple with the plague; among them we find Dr. Glisson, the distinguished Regius Professor of Physic at Cambridge, the well-known name of Paget, Dr. Wharton, Physician to St. Thomas's, Dr. Francis Bernard, afterwards Physician to St. Bartholomew's, and Dr. Hodges, who has left a good account in his *Loimologia* of the ordeal through which he passed. Another excellent description of the great plague is by Boghurst, the apothecary. This, the *Loimographia*, was left in MS., and first printed in 1894 by Dr. J. F. Payne. The most popular version is of course that by Defoe, one which will long live as literature, but untrustworthy for our purpose—for it is by no means the account of an eye-witness as it professes to be, Defoe being not more than five years old at the time. During the epidemic at Marseilles in 1720 there was a painful revival of interest in the subject, of which Defoe took advantage to secure many readers for his interesting novel. Such was the literary skill of Defoe that his fictions are clothed with what seems the sober veracity of history. It is untrustworthy, I say, for our purpose, for he undoubtedly follows Dekker's account of the earlier plagues of the century, and applies it to 1665. As a matter of fact, those in authority had profited by experience, and good order appears to have been kept, the bills of mortality produced regularly, and an abundant supply kept in the markets. Creighton says that the dead were buried with full ceremony and in coffins till the height of the epidemic in August and September. Then the bodies were brought in cartloads and thrown in; in excavating for Broad Street Station, a stratum four feet down, and extending another eight to ten feet deep, was found which was full of uncoffined skeletons. Still this probably did not occur to nearly the extent Defoe states, while it was common in the 1603 and 1625 epidemics. I shall venture to go beyond Creighton on this point, for at the height of the epidemic we read in Evelyn's Diary, under the date of September 7th, "I went all along the City from Kent Street to St. James's, a dismal passage, and dangerous to see so many coffins exposed in the streets, now thin of people." Moreover we have no proof that the Broad Street pit does not date from 1603 or 1625.

The story of this epidemic is as an oft-told tale; my repetition of it shall be brief. At the close of 1665, two or three persons died suddenly in one family at Westminster; timorous neighbours moved into London and took the contagion with them. Long Acre was next attacked, and the infection spread through St. Giles's, down Holborn, and reached the City. Nevertheless the mortality did not attain double figures for the week till May 23rd, when fourteen died.

Then it began to increase rapidly, reaching 112 in the week ending June 13th. It was at the beginning of this week that Pepys notes, "This day, much against my will, I did in Drury Lane see two or three houses marked with a red cross upon the doors, and 'Lord have mercy' writ there, which was a sad sight to me, being the first of the kind to my remembrance I ever saw. . . . Forced to buy some roll tobacco to smell and chew, which took away the apprehen-

sion." In passing I should remark that the eminent Diemerbroeck, who had experience of the plague in Holland in 1636, praised tobacco as a preventive. Hodges was uncertain as to its value; personally, he tells us, he is its professed enemy, placing his reliance on sack.

Ten days later Pepys tells us, "It struck me very deep this afternoon going with a hackney coach from my Lord Treasurer's down Holborne; the coachman I found drive easily and easily, at last stood still, and came down hardly able to stand, and told me that he was suddenly stricken very sicke and almost blinde, he could not see."

The mortality was now spreading by leaps and bounds, being 1082 in the week ending July 18th, 2010 a fortnight later; then increasing about 1000 a week, it reached its height in the week ending September 19th. In that awful week 7000 died in the City and Liberties, but if we include the suburbs Dr. Hodges tells us 12,000 was the total. By this time all who could fly had done so, the court had moved to Oxford, fires were burning in the streets, all was desolation. Says Pepys, "Grass grows all up and down White Hall Court, and nobody but poor wretches in the street." But the tide had turned, and next week saw a decrease of 2000. October was ushered in with a weekly death-rate from plague of 4300. Pepys writes under date of October 7th, "In the highway come close by the bearers with a corpse dead of the plague; but Lord! to see what custom is, that I am come to think almost nothing of it." A week later the deaths fell to one half, and by this time we hear "that in Westminster is never a physician, and but one apothecary left, all being dead." The mortality remained at about a 1000 per week till the middle of November, when it rapidly fell again, December seeing the average rate rather above 200. General confidence was restored, and the people flocked back to town, and displayed a foolhardiness only equalled by their former panic, actually, Hodges tells us, "using beds in which people had just died, before the rooms were even cleansed from the stench of the diseased." But the plague had spent its force, and many of those attacked recovered; and none too soon, for during that year 68,506 plague deaths were registered without counting the suburbs of Stepney, Lambeth, and Newington. I like to turn to the picture of sturdy old Dr. Hodges going about his avocation at a time when Pepys says, "This disease [is] making us more cruel to one another than if we were dogs." He rose early and took the quantity of a nutmeg of the anti-pestilential electuary; then spent two or three hours in a large room examining patients; then breakfast, followed by professional visits till dinner-time, putting some proper thing on the coals and keeping a lozenge in his mouth all the time; he naively tells us he kept his mind as composed as possible. He drank a glass of sack before dinner, and partook of easy and generous nourishment. He again visited till eight or nine at night, and "then concluded the evening at home by drinking to cheerfulness of my old favourite liquor, which encouraged sleep and an easie breathing through the pores all night." During the whole time, he tells us, he felt ill but twice.

The plague lingered throughout 1666, causing in all 1998 deaths, some 500 above its endemic level; in the first three weeks of December the deaths were two, four, and three, and never again rose from that point in London; a few deaths from it continued to appear in the bills of mortality till 1679, when the disease seems to have, as it were, finally flickered out. In the provinces, Cambridge, Eym, and especially Colchester were severely affected in 1666; but that year saw the last of the disease in the provinces, except for a few cases at Peterborough in the first quarter of 1667. Thus plague left our shores for ever, and though there were rumours of its return at Bath in 1675, Newcastle in 1710, and London in 1799, these were but baseless reports. Some cases which could be taken for plague occurred after the disinterment of some bodies at Eym, that Derbyshire village which had been so severely stricken in 1665-6, by infection brought from London in a box of clothes. In 1779 "putrid fever" prevailed there, of which seventeen died—all, it is significantly noted, with swellings in the neck and groins.

Europe did not become free till 1841, when, as Payne tells us, plague left it by its eastern gate, Constantinople; and Asia, at the present moment, is still suffering from its scourge, though but at isolated points.

Thus ends a brief recital of the devastations wrought by plague in England; a discussion of the causes which have led to its extinction must be reserved for a subsequent paper.

[NOTE.—In common with all who write on this subject, I am under many obligations to Dr. Creighton's *History of Epidemics in Great Britain*; but in every case I have attempted to consult the authority of contemporary writers. It is a pleasant duty to express my thanks to Dr. Norman Moore for much kind help.]

An Account of Two Patients Trephined for Head Injury at the Beckett Hospital, Barnsley.

By JOHN CURRIE, Resident Medical Officer.

CASE 1. Matthew D—, æt. 22, miner, was admitted to the hospital on August 8th, 1895, suffering from injury to the head and side. While at work in the pit, he was knocked down by a fall of stones, which struck him on the left side of the head. On admission he complained chiefly of pain in the side. He was quite conscious; eyes were natural; there was no paralysis. There was tenderness on the left side of the head above the ear. On the afternoon of his admission he had what somewhat resembled an epileptic fit; no history of previous fits. There were two slight fits during the same night.

August 9th.—During the afternoon, patient suddenly became very violent, clenching his arm and drawing up his legs, and getting into a position of opisthotonos. All these attacks began with movements of the right arm and leg. There was noticed an external squint in the right eye. The attack commenced at 3.20 p.m., and lasted until 7 p.m., when chloroform was administered, but it returned when the effects of the anæsthetic passed off. At 10 p.m. patient was taken to the theatre and placed under the influence of chloroform, and a flap was raised on the left side, over the situation of the fissure of Rolando. No fracture was found, and the flap was replaced.

10th.—Patient is quieter; had two fits during the night.

17th.—Patient has had several slight attacks during the week, in all of which the movements began in the right arm. Yesterday evening he again became very violent, and chloroform had to be administered. There is extreme tenderness to pressure over the whole left side of the scalp. Wound is doing well.

22nd.—Patient had an attack lasting from 11.15 to 1.15; he was very violent, and CHCl_3 had again to be administered. He has been taking potass. bromid. and chloral, but the mixture makes him sick.

27th.—Has improved considerably since the last note. One slight fit last night. Gets up for a short time in the afternoon.

September 4th.—Has kept fairly well since last note until this evening. At 8.30 p.m. he was seized with very acute pain in the head, which he referred to two points, one just above the highest part of the scar over the fissure of Rolando, and one $1\frac{1}{2}$ inches behind and below the former. Pain was so severe that at times the patient seemed hardly conscious of what he was saying and doing—he made a great noise, and was at times violent. Chloroform was administered, and it was found necessary to keep him slightly anæsthetised during the night and next day.

5th.—He slept from 3 to 5 p.m., but on waking was as bad as ever, and at 9 p.m. a consultation was therefore called, at which trephining was decided upon. A semicircular incision was made rather nearer the vertex and a little further back than the former one, and a piece of bone the size of a shilling was removed, over the situation of the arm centre on the left side. No fracture or depressed bone was found. The dura mater was not opened.

7th.—Patient was a little noisy after the operation, but has been quiet since, but very sick.

22nd.—Patient remained well until 22nd, when he got excited by watching a bicycle parade, in which he was to have taken part. This morning he was depressed, and afterwards noisy, and made some attempts to go home. Has continued in this state all day. There has been no acute pain, but he has complained of a "rambling" in his head.

27th.—Patient was sent home. There is a small discharging sinus at posterior end of last incision.

About the middle of October he made his appearance at the hospital at 2 a.m., in one of his attacks, having walked four miles in a cap, coat, night-shirt, and stockings. On this occasion we did not take him in, but had him taken to the police-station, and the next day he was sent to the workhouse, and from there he went home.

November 8th.—He was readmitted on account of the sinus in connection with the second wound, which was still unhealed; but he was so intractable that he was sent to the workhouse on November 14th. From there he went home again.

We heard nothing more of him until early in this year, when we heard that he had attempted to commit suicide. He was on March 21st taken to the asylum.

On May 29th he was again trephined by Dr. Sinclair White, of Sheffield, whose account of his condition and the operation I now give with his permission.

"Had an epileptic fit on March 25th and again on April 10th. The sequence of muscles affected not observed. He feels seedy, and is unable to sleep well; has general headache. Vomits every few days; vomiting apparently not connected with gastric disturbances. Intelligence fair, face pale, pulse 108, soft. Patellar reflex exaggerated on both sides; muscular tremor in both hands; tongue tremulous; grip of left hand strongest (is right-handed). Says he feels weak in right arm and leg. Muscular co-ordination fair for coarse movements, but writing unsteady. Sight failing; V., right eye = $\frac{3}{8}$, left eye = $\frac{3}{8}$. Right ear, watch heard at one inch; left, at half an inch. Felt dizzy before the fits, but there was no distinct aura. Two sinuses one inch apart, and half an inch behind the left fissure of Rolando. Slight discharge and great tenderness around; scalp puffy. I removed about three square inches of his skull; but beyond thickening of the dura mater at the site of the old trephine opening, I found nothing distinctly pathological. The skull was unusually thick, but there was neither dead bone nor pus to be seen. I opened freely the dura mater and arachnoid, and a very copious discharge of cerebro-spinal fluid resulted, but the brain tissue appeared perfectly healthy and pulsated. Such being the case, I judged it inexpedient to incise the brain tissue. The operation will probably give him relief for a time at any rate."

September 4th, 1896.—I saw the patient this morning, who had been at liberty for eight weeks. So far he has had none of his old attacks, and feels very well.

This case is interesting, inasmuch as he, so far as can be discovered, was perfectly healthy before the accident on August 8th, 1895; the result of which was first of all convulsions, which pointed very strongly to an irritation in the left fissure of Rolando; then the subsidence of these fits and the development of what I suppose were really attacks of acute mania, and afterwards distinct suicidal mania. I shall watch the further progress of the case, and duly report in these columns any further developments of interest which may arise.

CASE 2.—Frederick T—, æt. 16, was brought to the hospital on October 25th, 1895, at 3.40 a.m., suffering from a wound over the right frontal eminence. On admission patient was quite conscious. There was a horizontal wound $2\frac{1}{2}$ inches in length on the right frontal eminence, the periosteum being divided and the bone bare beneath. On exploration with the finger the bone was felt to be fractured horizontally in two places, the fractures running parallel with one another and half an inch apart. The piece of bone between them was depressed a quarter of an inch. The wound was temporarily dressed. Whilst he was being washed and got ready for bed he had an epileptiform fit, which began on the left side and became general; it lasted several minutes. Another fit of the same kind occurred during the night, and a third at 11 a.m., whilst the surgeon was in the ward. At 4.30 p.m. patient was anæsthetised with CHCl_3 . An incision $1\frac{1}{2}$ inches long was made from the middle of the upper edge of the original wound, at right angles to it. A piece of bone, equal in size to a shilling, was then removed just above the upper fracture, and the depressed portion easily elevated into position. There was only very slight hæmorrhage. The wound was sutured, and iodoform and alembroth gauze dressing applied. Patient was restless until 8 p.m., and was sick once. He slept all night.

26th.—Temperature rose to 99° last night; 98° this morning. Very sleepy.

31st.—Temperature reached 99.6° on 26th and 99.2° on 27th. It has not been above normal since. Wound was dressed on 29th; there was a small point of suppuration at the right corner of the wound; otherwise it was looking well. There has been no return of convulsions, and patient felt well.

November 13th.—Wound quite healed; he has had no pain, dizziness, nor convulsions. Has been up for last four days.

He was discharged on the 19th.

On March 17th, 1896, the patient was readmitted. He had been at work in the pit for some weeks until this date, when he received a kick from a horse on the forehead. He was brought to the hospital sitting up in a dog-cart; and he walked into the receiving room with a little help.

He seemed somewhat dazed, but was able to stand alone for about two minutes; he then fell and had a convulsion, affecting principally the right side, after which he was unconscious. Mr. Jeffery was sent for, and on examination the patient was found to have a scalp wound about two inches long over the left frontal eminence; it was almost vertical, and the bone beneath was fractured and depressed. There were more convulsions between the time of his admission and of the operation; in the intervals he was in a semi-comatose condition.

Operation.—At 7.30 p.m. he was anæsthetised with chloroform.

The wound was enlarged upwards, and the condition of the bone examined. It was found to be irregularly fractured, and the depressed portion had penetrated the dura mater and lacerated the brain. A portion of bone equal in size to a shilling was removed from the upper and inner side of the wound, and the depressed portion elevated without difficulty; there was free bleeding, which ceased directly the elevation was complete. The wound was well irrigated with carbolic lotion, sutured, and dressed. The operation, which was well borne, lasted thirty minutes.

18th.—There has been no sickness. Temperature after the operation was 98°8'. No return of convulsions; patient quite conscious and comfortable.

19th.—Passed a good night; he was sitting up in bed asking for bread and butter at breakfast time. No pain. Temperature normal.

21st.—Wound dressed; is looking very well. Temperature is normal.

24th.—Wound quite healed; stitches were removed.

April 3rd.—Recovery continued uninterrupted; there has been no return of convulsions, and no headache. Patient was discharged to-day.

June 1st.—Patient was seen a few days ago. He looks and feels well, and thinks he will give up working at coal mining.

The account of this patient is interesting, inasmuch as within the space of twenty-one weeks he received two very grave injuries to the head, for each of which he had to be trephined, and from each of which he recovered without a bad symptom. Such a case I venture to think is unique.

I am much indebted to Dr. Horne and Mr. Jeffery for allowing me to publish an account of these two cases.

Notes.

WE desire to call attention to the Mid-session Address to the Abernethian Society, which will be delivered on January 14th by an old Bart.'s man, Dr. E. G. Browne. Under the title of "A Chapter in the History of Cannabis Indica," Dr. Browne proposes to discuss the rise, organisation, and achievements of the notorious Assassins of Alamont, who gave that drug so sinister an introduction to Western Asia in the thirteenth century.

THIS is a subject which Dr. Browne has made peculiarly his own. Leaving the Hospital in 1887, Dr. Browne spent a year in Persia, and has since published his experiences there in book form, *A Year among the Persians*. Since his return to England he has held the post of University Lecturer in Persian at Cambridge.

THE Arnold Gerstenberg Studentship in Moral Science, open to Cambridge men who have graduated with honours in Natural Science, has been divided between Mr. C. S. Myers, scholar of this Hospital, and Mr. Tansley. We congratulate Mr. Myers on his success, and hope to see his essay, which was on "Vitalism," published before long.

DR. A. A. KANTHACK has been appointed Deputy Professor of Pathology at the University of Cambridge for one year in consequence of the illness of Professor Roy. We hear that this appointment will necessitate Dr. Kanthack's resignation of his Lectureship at St. Bartholomew's.

DR. DONALD MACALISTER has been appointed a member of the General Board of Studies at Cambridge.

MR. H. K. ANDERSON has been elected a member of the State Medicine Syndicate at Cambridge.

DR. THORNE THORNE, C.B., has been appointed Examiner for the D.P.H., Cambridge.

MR. A. G. PENNY, M.A., has taken the degree of B.C. at Cambridge.

DR. L. E. SHORE has been elected University Lecturer in Physiology at Cambridge, *vice* Dr. Sheridan Lea.

MR. H. K. ANDERSON and Mr. A. Eichholz have been elected Demonstrators in Physiology at Cambridge.

MR. W. E. MILES has been gazetted Surgeon-Lieutenant to the Volunteer Medical Staff Corps, *vice* Mr. H. J. Waring, resigned.

DR. CHRISTOPHER ADDISON has been appointed Arthur Jackson Professor of Anatomy in the Sheffield School of Medicine.

DR. F. E. BATTEN has been appointed Casualty Physician to the Hospital, *vice* Dr. Drysdale.

DR. C. H. DRYSDALE has been appointed Assistant Physician to the Royal Hospital for Diseases of the Chest, City Road.

MR. C. P. WHITE has taken the degrees of M.A., M.B., B.C., at Cambridge.

OUR London M.B. results are again most satisfactory, and we especially congratulate Mr. Emery upon his brilliant success. He takes the Scholarship and Gold Medal in both Medicine and Obstetric Medicine, and has Second Class Honours in Forensic Medicine. Thus in two consecutive years three of the Scholarships and four of the Medals awarded at this Examination have been secured by Bart.'s men—a result of which we feel justly proud. Four men passed in the first division and eleven in the second, whilst fourteen places in the Honours List were obtained by seven of our men. The results tabulated are as follows;

	1st Class Honours.	2nd Class Honours.	3rd Class Honours.
Medicine	1	1	1
Obstetric Medicine	2	2	3
Forensic Medicine	0	2	2

EQUALLY satisfactory was the Final Fellowship, eight out of ten of our candidates being successful.

We greatly regret that we are compelled to hold over till our next issue many interesting communications now in type.

Amalgamated Clubs.

BALANCE-SHEET, 1895-6.

Cr.	£	s.	d.
By Members' Subscriptions	586	19	0
" Grant from Medical School	100	0	0
" Profit on the JOURNAL	95	8	2

Audited and found correct according to
vouchers and bank pass book.

H. MORLEY FLETCHER.
PERCY FURNIVALL.
P. W. JAMES.

£782 7 2

November 30th, 1896.

Dr.	£	s.	d.	£	s.	d.
To Grants to Clubs:						
Rugby Football Club	20	8	6			
Association Football Club	13	9	7			
Boxing Club	28	15	7			
Athletic Club	43	3	11			
Crickets Club	25	18	2			
Lawn Tennis Club	13	5	6			
Boating Club	0	0	0			
Shooting Club	5	0	0			
Swimming Club	13	7	0			

To Abernethian Society, 77 members at £1 1s.	163	8	3
" Musical Society	80	17	0
" Maintenance and Reserve Fund	20	0	0
	518	1	11

£782 7 2

MAINTENANCE AND RESERVE FUND, 1895-6.

Cr.	£	s.	d.
By Balance from 1894-5	250	16	7
" Funds as in General Account	518	1	11
" Sale of Refreshments	9	1	1
" Fines for new Tickets	0	1	0

Audited and found correct according to
vouchers and bank pass book.

H. MORLEY FLETCHER.
PERCY FURNIVALL.
P. W. JAMES.

£778 0 7

November 30th, 1896.

Dr.	£	s.	d.
To Stamps for cheques, &c.	0	8	5
" Subscriptions to Hare and Hounds	3	3	0
" Special Grant to Swimming Club	2	0	0
" Lamps and Oil	4	13	8
" Appliances for ground, goal-posts, tennis nets, scoring box, ropes, &c.	62	16	3
" Rent of ground	300	0	0
" Rates, taxes, and water	49	4	2
" Fairhead for draining	21	1	8
" Printing	1	10	6
" Wages of ground men and boy, coals, keep of horse, and sundries as in weekly book	114	9	1
" Refreshments, luncheons to visiting teams, &c. &c.	8	18	0
" Secretary's petty cash	9	0	0

Balance at bank, October 1st, 1896	£577	4	9
	200	15	10

£778 0 7

ST. BARTHOLOMEW'S HOSPITAL RUGBY F.C.

ST. BART'S HOSPITAL v. CIVIL SERVICE.

Played at Winchmore Hill on October 10th. The result of this match was a win for Civil Service by one goal to one try. Bart's won the toss, and in the first half Bart's forwards rushed the ball down into Civil Service's "25," and a heel out from a scrum resulted in Scholberg scoring a try, which, however, was not converted. On crossing over Civil Service pressed and scored a try, which was converted. Bart's then played up and pressed Civil Service in their "25," but were unable to score again, and the match ended as above stated.

Team.—T. M. Body (back), S. Mason, T. A. Mayo, C. Dix, P. H. Scholberg (three-quarters), G. C. Marrack, C. J. Thomas (half-backs), H. M. Cruddas, A. J. W. Wells, J. K. S. Fleming, C. H. D. Robbs, H. C. Adams, A. M. Amsler, A. L. Vaughan, H. Weeks.

ST. BART'S HOSPITAL v. EALING.

Played at Winchmore Hill on October 17th; the result being a win for Bart's by 2 goals 5 tries (25 points) to nil. Ealing kicked off, and for the first few minutes the game was in Bart's "25." Body, however, relieved, kicking into touch close to their goal line. From the throw-out and a pass to Mason enabled him to score a try, which was not improved upon. Ealing then had a chance of equalising from a free kick in front of goal, the ball hitting the post. A dribble by Robbs up to their line resulted in a try by Scholberg, which was converted by Fleming. In the second half our forwards pressed continuously—Mayo, Marrack, and Scott scoring from scrums on their line. Shortly afterwards Marrack

scored a second try after a good run. Just before time Fleming scored and himself converted. The result was chiefly due to the great superiority of the Bart's forwards, though the outsiders played a good game in the first half until a heavy shower of rain made the ground slippery and the ball greasy.

Team.—T. M. Body (back), S. Mason, T. A. Mayo, C. Dix, P. H. Scholberg (three-quarters), A. Hawkins, G. C. Marrack (half-backs), H. M. Cruddas (capt.), J. K. S. Fleming, C. H. D. Robbs, H. C. Adams, A. M. Amsler, M. B. Scott, A. L. Vaughan, F. H. Noke.

ST. BART'S HOSPITAL v. WICKHAM PARK.

Played at Catford. The result was a loss for Bart's by two goals to one goal. Bart's played one short in the scrum, Vaughan being taken out to fill Marrack's place at half. Wickham Park kicked off and at once passed and scored, the try being converted. Mayo then scored for us after a good run, the try being converted by Fleming. Wickham Park again scored and converted the game, ending as stated above.

Team.—T. M. Body, S. Mason, T. A. Mayo, C. Dix, P. H. Scholberg, A. Hawkins, A. L. Vaughan (half-backs), H. M. Cruddas (capt.), J. K. S. Fleming, C. H. D. Robbs, H. C. Adams, A. M. Amsler, M. B. Scott, F. H. Noke.

ST. BART'S HOSPITAL v. R.N.C.

Played at Greenwich on October 28th, the result being a win for us by 2 tries to nil. R.N.C. kicked off, and for some time the play was near our "25," but our forwards, who were working hard, gradually took the ball down into our opponents' "25," and after some loose dribbling, Robbs scored a try which was not improved upon. On crossing over Bart's forwards still held their

own, and from a scrum Wells scored a try. The kick was a failure, and the game ended in a win for Bart.'s by 6 points to nil.

Team.—T. M. Body, S. Mason, T. A. Mayo, C. Dix, H. Falk (three-quarters), G. C. Marrack, J. C. Sale (half-backs), H. M. Cruddas, A. J. W. Wells, J. K. S. Fleming, C. H. D. Robbs, H. C. Adams, A. M. Amsler, M. B. Scott, A. Ll. Vaughan.

ST. BART'S HOSPITAL v. UPPER CLAPTON.

Played at Clapton on October 31st, the result being a win for us by 2 tries (6 points) to nil. Upper Clapton kicked off, and a very even game was played in the first half, neither side scoring. On crossing over our forwards played a good dribbling game, Robbs being especially prominent, scoring both tries, which were not improved upon. At full back Body played well, his kicking being excellent.

Team.—T. M. Body (back), S. Mason, C. Dix, T. A. Mayo, P. H. Scholberg, G. C. Marrack, J. C. Sale (half-backs), H. M. Cruddas, A. J. W. Wells, J. K. S. Fleming, C. H. D. Robbs, H. C. Adams, A. M. Amsler, M. B. Scott, A. Ll. Vaughan.

ST. BART'S HOSPITAL v. EAST SHEEN.

This match was scratched by mutual consent, as there was a county match being played at Richmond.

ST. BART'S HOSPITAL v. R.I.E.C.

Played at Cooper's Hill on November 7th. The result was a loss for us by 1 goal (5 points) to nil. Cooper's Hill kicked off and pressed; Marrack getting the ball passed to Scholberg, who ran along the touch line and punted over the heads of the opposing three-quarters, appeared likely to score, but the ball went into touch. Immediately after there was some excellent passing by our three-quarters, and Mason was collared near their line. The R.I.E.C. forwards then rushed the ball close to our line, and from a scrum Mitchell scored close to the corner flag. The try was converted. The rest of the first half and most of the second half was confined to forward play, Cooper's Hill showing up better in the tight scrum-ming, and Bart.'s in the loose. Cooper's Hill three-quarters made several attempts to get through, but could not do so, owing to the good tackling of our forwards. Towards the close Bart.'s were several times dangerous, Robbs dribbling over their line, but failing to touch it down. The game ended, as stated, in a win for Cooper's Hill.

Team.—T. M. Body, S. Mason, T. A. Mayo, C. Dix, P. H. Scholberg (three-quarters), G. C. Marrack, J. C. Sale (half-backs), H. M. Cruddas, A. J. W. Wells, C. H. D. Robbs, H. C. Adams, A. M. Amsler, M. B. Scott, A. Ll. Vaughan, H. Weeks.

ST. BART'S HOSPITAL v. R.M.C.

Played at Sandhurst on November 14th. The result was a loss for us by 2 tries to 1. Bart.'s were not fully represented, but nevertheless played up well. In the first half Sandhurst were the first to score, the try being unconverted. Bart.'s then dribbled the ball into Sandhurst's "25," and some passing amongst the forwards enabled Scholberg to score right between the posts. The kick at goal was a failure. On crossing over, Sandhurst again scored, the tries being unconverted. Sandhurst then showed up well in the tight scrums, but in the loose Bart.'s more than held their own. Unfortunately, just before half-time Scholberg hurt his knee, and has been unable to play since then.

Team.—T. M. Body, S. Mason, T. A. Mayo, C. Dix, P. H. Scholberg (three-quarters), G. C. Marrack, A. Hawkins (half-backs), H. M. Cruddas, A. J. W. Wells, H. F. Bennett, C. H. D. Robbs, A. M. Amsler, M. B. Scott, A. Ll. Vaughan, H. Weeks (forwards).

ST. BART'S HOSPITAL v. MARLBOROUGH NOMADS.

Played at Surbiton on November 21st, the result being a win for Bart.'s by 1 goal 5 tries to 1 goal. Bart.'s kicked off, and on the Nomads returning, the ball rebounded from the goal post and enabled the Nomads to score. The try was converted. Bart.'s then played up, and the three-quarters playing a brilliant game, we were enabled in the first half to more than equalise, Falk, Dix, and Fisher obtaining tries. Sale took the kicks, two of which were at difficult angles, and succeeded in converting one. On crossing over Bart.'s had it all their own way, Mason, Robbs, and Cruddas scoring tries. The kicks were unsuccessful, and thus we won by 20 points to 5.

Team.—T. M. Body, S. Mason, H. Falk, C. Dix, C. F. Fisher (three-quarters), G. C. Marrack, J. C. Sale (half-backs), H. M. Cruddas, A. J. W. Wells, W. F. Bennett, C. H. D. Robbs, H. C. Adams, A. M. Amsler, M. B. Scott, A. Ll. Vaughan.

ST. BART'S HOSPITAL v. CROYDON.

Played at Croydon on November 28th, Bart.'s suffering a severe defeat. The only thing to be said about this match is that Bart.'s were very weakly represented, and the team disorganised by men playing out of their places; and besides this, Marrack, who was playing three-quarters, was injured in the first ten minutes, and had to retire. Result was that we lost by 5 goals 1 try to nil.

Team.—T. A. Mayo (back), E. R. Risien, S. Mason, G. C. Marrack, H. Falk (three-quarters), A. Hawkins, J. C. Sale (half-backs), H. M. Cruddas, A. J. W. Wells, C. H. D. Robbs, H. C. Adams, A. M. Amsler, M. B. Scott, A. Ll. Vaughan, H. Weeks.

ASSOCIATION FOOTBALL CLUB.

RESULTS OF MATCHES.

Nov. 11 ... v. Proprietary School at Ealing ...	... won ... 5-2
Nov. 14 ... v. Eastbourne ... at Eastbourne ...	... won ... 3-2
... v. Old Foresters II ... at Winchmore Hill ...	... won ... 4-2
Nov. 18 ... v. City of London Sch. at Winchmore Hill ...	... won ... 8-0
Nov. 21 ... v. Ealing ... at Ealing ...	... drn ... 1-1
... v. Ealing Reserves ... at Winchmore Hill ...	... lost ... 3-5
Nov. 25 ... v. Casuals ... at Winchmore Hill ...	... lost ... 0-2
... v. Guy's Hospital II. at Honor Oak ...	... won ... 2-0
Nov. 28 ... v. Barnes Incogniti ... at Barnes ...	... won ... 2-1
Dec. 5 ... v. Newbury ... at Newbury ...	... lost ... 2-4
... v. Tonbridge ... at Tonbridge ...	... lost ... 3-5

First team have this season played 10 matches; won 4, lost 3, drawn 3, scoring 29 goals to 22. Reserves played 13, won 8, lost 3, drawn 2, goals 43 to 32.

ST. BART'S HOSPITAL v. EASTBOURNE.

This match was played on November 14th at Eastbourne. There was a strong wind blowing which rather spoilt the game, especially as it also began to rain soon after the start, and continued till the end. Bart.'s won the toss and elected to play with the wind. Eastbourne kicked off and for a time had considerably the best of matters, and were only kept from scoring by the excellent defence of the Hospital backs and goal-keeper. The Hospital, however, soon attacked the Eastbourne goal, but failed to score. Eastbourne then again attacked, and were awarded a penalty, from which they scored. Shortly afterwards they scored again off a free kick for "hands." This woke Bart.'s up a bit, and shortly before half-time Woodbridge scored. The score at half-time was Eastbourne 2, Bart.'s 1. After the interval the Hospital improved considerably, and after several ineffectual attempts at length equalised, Willett scoring after a good combined run by the forwards. A few minutes before time Robinson gave the Hospital the lead, and, after a good game, Bart.'s won by 3 goals to 2.

TEAMS.

St. Bart.'s.—E. H. B. Fox (goal); R. P. Brown, L. Orton (backs); A. H. Bostock, D. S. Gerrish, H. J. Pickering (half-backs); T. H. Talbot, C. A. Robinson (right wing), J. A. Willett (centre); E. W. Woodbridge, H. N. Marrett (left wing), (forwards).

Eastbourne.—H. Winchester (goal); H. J. Martin, J. Brown (backs); W. N. Willis, A. G. Topham, E. G. King (half-backs); W. Hartley, M. Hastings, P. C. Scott, J. W. Wright, B. Elliott (forwards).

After the match Dr. O'Brien Harding kindly entertained the Hospital team and some of the members of the Eastbourne Club to dinner.

ST. BART'S HOSPITAL v. EALING.

This match was played on November 21st, at Ealing, and resulted in a draw of 1 goal each. The Hospital were without the services of Willett and Whitaker. In the first half the game was rather in favour of the Hospital, but through bad shooting only one goal was scored.

In the second half the game was very even, each goal being attacked in turn. Ealing at length scored, thus equalising. After some more exciting play time was called, leaving the score 1-1. The goal for the Hospital was scored by Robinson.

Team.—E. H. B. Fox (goal); R. P. Brown, L. Orton (backs); H. J. Pickering, D. S. Gerrish, A. H. Bostock (half-backs); T. H. Talbot, C. A. Robinson (right wing), E. W. Woodbridge (centre), G. W. Stone, H. N. Marrett (left wing), (forwards).

ST. BART'S HOSPITAL v. CASUALS.

Played at Winchmore Hill, on November 25th. Both clubs were badly represented, Casuals only having ten men, two of whom were

substitutes. Casuals won the toss, and Bart.'s kicked off towards the pavilion. The game was slow and combination bad; although the Hospital had somewhat the best of it they failed to score.

Half-time arrived without either side having gained a point. In the second half Casuals had the best of matters, and scored twice.

Team.—C. Harland (goal); R. P. Brown, L. Orton (backs); H. J. Pickering, D. S. Gerrish, A. H. Bostock (half-backs); T. H. Talbot, L. H. Hughes (right), R. Waterhouse (centre), E. W. Woodbridge, H. N. Marrett (left), (forwards).

ST. BART.'S HOSPITAL v. NEWBURY.

This match was played at Newbury on Saturday, December 5th, and resulted in the defeat of the Hospital by 4 goals to 2. Newbury won the toss and elected to play with the wind first. Bart.'s, who were without the services of Whitaker, Pickering, Robinson, and Marrett, kicked off, and Newbury at once attacked, and kept up the pressure for some time. Bart.'s forwards occasionally got away, but failed to get near enough to score. After about twenty minutes' play Newbury scored from a corner. Soon afterwards the home team again scored. Bart.'s then attacked with a little more vigour, and Gerrish scored with a good shot. Newbury replied with another goal, and at half-time the score stood 3-1 in favour of Newbury. After half-time the game was somewhat more even, though Newbury still continued to have the best of it, and scored another goal. About a quarter of an hour from time a good run and a pass across the goal, made by Talbot, ended in Woodbridge scoring. Nothing more was scored, though both sides tried hard, and the game ended as above. The slippery and somewhat rough state of the ground, combined with a ball which was not spherical, seemed to considerably bother the Hospital team.

Team.—E. H. B. Fox (goal); R. P. Brown, E. J. Deck (backs); M. G. Winder, D. S. Gerrish, A. H. Bostock (half-backs); T. H. Talbot, G. W. Stone, J. A. Willett, E. W. Woodbridge, A. Hay (forwards).

Abernethian Society.



R. SINCLAIR GILLIES has been elected a President of the Society *vice* Mr. W. R. Stowe, resigned.

At a meeting on October 15th Mr. W. Langdon Brown read a paper on "The Extinction of Plague in England," of which a portion appears in this issue.

A new departure was tried with great success on October 22nd. Instead of the ordinary clinical evenings a series of short communications are given, at which members are requested to bring forward any subject at which they have worked, or which has fallen under their observation. Mr. L. B. Burnett read a short paper on "Ulcerative Colitis."

This disease was dealt with in its relations to—

1. Dysentery.
2. Renal disease.
3. Swine fever.

1. Under the first heading evidence was brought forward which tended to prove that the two diseases were distinctly related to one another. This evidence being—

(i) A series of eight cases occurred in epidemic form at the Southampton Infirmary, all of which showed typical symptoms of dysentery. Post-mortem examinations were made in two out of five fatal cases, and in both of them the lesion found was not that of dysentery, but that of ulcerative colitis, part of the intestine of one of them being in our museum as a specimen of the latter disease (No. 1087D).

(ii) Ulceration was frequently found in the cases of chronic dysentery that occurred in the war between the northern and southern States of America (*vide Medical Report*). These irregular ulcers were not due to the separation of sloughs, and occurred in the same intestine with the follicular ulcers common to the disease, sometimes one and sometimes the other condition predominating. A reproduction of one of the plates in the *Report* was shown in confirmation of this point.

(iii) It is impossible to say that the origin of some of the most advanced cases of ulcerative colitis has not been follicular, from the fact that there is practically no mucous membrane left to show where the lesion may have started.

So that in conclusion he was inclined to think that the cases of ulcerative colitis were really sporadic cases of chronic dysentery

occurring under the modifying influences of good hygiene and a temperate climate.

2. Its connection with renal disease. This subject was dealt with owing to passing references made to a possible connection between the two conditions by Dr. Hale White in his original paper, and later by Dr. Tooth (in the *Path. Soc. Trans.*, p. 4). The conclusion was negative.

An abstract of Dr. Dickinson's article on "Albuminuric Ulceration of the Bowel" was given, the main points of which were that in this disease the following conditions were found:

- i. Very marked cardio-vascular changes.
- ii. The small intestine was most frequently affected.
- iii. The ulceration was always hæmorrhagic in origin.

Whereas in the twelve cases of ulcerative colitis in which the kidneys were affected, out of thirty-one cases collected (nineteen of which had already been published), only one case could be found in which there was any cardio-vascular change that could have been due to the accompanying renal condition.

Again, in the whole thirty-one cases there were only two showing signs of a hæmorrhagic origin. These were—

(i) Dr. Hale White's case with purpura, the kidneys being normal.

(ii) One under Sir Dyce Duckworth with myxœdema. The kidneys were slightly granular on the surface.

3. Its connection with swine fever. This was very briefly dealt with, and the conclusion was again negative.

Mr. Maxwell showed an interesting series of photographs illustrating some tropical diseases, including anæsthetic and tubercular leprosy, leucoderma, diseases due to filaria, ulceration following foot-binding and macroglossia. Mr. Toye showed the original case of myositis ossificans described by Virchow, accompanied by a short history of the case. Mr. Pigg exhibited a series of sections of diphtheritic broncho-pneumonia. Mr. Maxwell read a short paper on "Suppurative Cholangitis;" Mr. W. L. Brown and Mr. Drury communicated notes of a case of hæmaturia due to Bilharzia, and exhibited specimens of the adult worm and the ova. At the close of the meeting specimens of fluorescent vibrios lent by Dr. Kanthack were exhibited.

At a meeting held on October 29th Dr. Morrison showed three rare cases of foetal malformation, and read his paper on "The Treatment of the Puerperal Uterus." In this he made a vigorous plea for systematic intra-uterine douching in all cases, claiming that in carefully conducted cases the risk was a negligible quantity. The subject was briskly discussed, and the Society is much indebted to Dr. Morrison for raising such an important point.

At a meeting held on November 5th Mr. D. W. Collings read a paper entitled "Diphtheria."

On November 12th the Society welcomed an old ex-President, Mr. Alban Doran, F.R.C.S., back to its meetings. It is unnecessary to give an abstract of his address on "The details of Ovariectomy, and disputed points in its after-treatment," as it will shortly appear *in extenso* in the pages of the JOURNAL.

Another meeting for short communications was held on November 19th, and was fully as successful as its predecessor. Dr. Kanthack brought forward a hitherto unpublished communication on "The Tse-tse Fly Disease," showing that the disease was due to hæmatozoa in the blood of the affected animals transmitted by the fly. Animals in infected districts, if protected from the fly, escaped the disease. A new point of interest is that rather similar hæmatozoa have now been found in the blood of the English rat. Specimens of the infected blood were shown with the hæmatozoa in a high degree of activity. Mr. Worthington showed a case of xerosis of the cornea in a man aged thirty-five, and Mr. H. J. May contributed an account of the Radcliffe statistics immediately before and after the introduction of the antitoxin treatment. Mr. Maxwell showed the brain of a boy who died of a glioma in the cerebellum, and gave an account of the case. Dr. Kanthack and Mr. Strangeways Pigg showed some pathological specimens hardened by immersion in boiling water for a few minutes. By this process it is possible to obtain very good sections in less than half an hour from a fresh specimen. The President, Mr. J. W. Stephens, gave a demonstration of "The Serum Diagnosis of Typhoid Fever," and showed how the addition of one or two drops of blood from a suspected case to an emulsion of typhoid bacilli will assist in the diagnosis. Should the case be one of typhoid fever the emulsion will become clear from precipitation of the bacilli, which will be found to be killed by the serum.

At a meeting held on November 26th Dr. S. H. Habershon read a paper on "Accurate Diagnosis from Physical Signs," a valuable communication full of practical details, in which he clearly showed the importance of various minutiae of examination.

"The Therapeutical Value of Foods in Infantile Diarrhoea" was the subject of Dr. Cautley's paper read on December 3rd, which contained a wealth of information on a subject much neglected despite its importance. This paper also will shortly be published in the JOURNAL.

The question of smoking at the meetings has again been raised, and rejected by a large majority.

Special attention is drawn to the Mid-Sessional Address to be delivered on January 14th by Dr. E. G. Browne on "A Chapter in the History of Cannabis Indica." Dr. Clave Shaw's paper on January 28th will be on "Wounds and Bruises in the Insane."

The Cambridge Graduates Club of St. Bartholomew's Hospital.

ON November 26th, at Frascati's Restaurant, the annual dinner of the above-mentioned club was held. The chair was taken by A. E. Shipley, Esq., M.A., Fellow of Christ's College, who proved himself in every way an admirable chairman.

The evening was without doubt a great success, the attendance indeed being "a record." Including guests, seventy-two sat down to dinner, this beating the previous record of last year by fourteen.

It was noted with pleasure that many new members were present, and it is earnestly hoped that next year those who were unable to come this time will make a point of attending, for only in this way can the object of the Club be furthered—namely, the bringing together of both Seniors and Juniors, with the advantages accruing to both from the opportunity of thus becoming personally acquainted. After dinner, the usual loyal toasts having been drunk, the chairman proposed the toast of the evening, "The Club." In the course of his speech, Mr. Shipley referred to the many prominent men whom the Hospital had given to Cambridge, including, among many others, the late Sir George Humphry, our much-loved Professor of Surgery. The speaker pointed out how beneficial was this intimate connection between the Hospital and the University, and he trusted that it might long continue.

The health of the guests, among whom we were glad to welcome many distinguished Oxford friends, was next proposed by Dr. Tooth, and responded to by Dr. Church and Dr. Kanthack. Dr. Tooth, in his speech, gave expression to the earnest hope of the Club that this would be the last occasion on which our distinguished Pathologist would be present as a guest. Next year it is hoped that he will be able to come as a member of the Club.

Dr. Norman Moore afterwards, with his usual eloquence and humour, proposed the toast of the chairman, a task which was peculiarly fitting for him, since it was he who, as Lecturer on Comparative Anatomy, had first introduced Mr. Shipley, when a student at the Hospital, to the study of that science in which he has since gained such distinction.

The chairman having responded, Mr. Wallis proposed in very kind terms the health of the secretaries, Dr. Morley Fletcher and Dr. Horton-Smith; and the latter having replied, the proceedings at Frascati's were brought to a close. No account of the dinner, however, would be complete without a word of thanks to Dr. West, Mr. Blandford, Mr. Myers, and Mr. Pollard, for the songs and music with which they so kindly varied the programme.

St. Bartholomew's Hospital Amateur Dramatic Club.

THE Annual General Meeting of the above Club was held in Mr. Cross's house on October 26th, when the following gentlemen were elected to form the committee for the ensuing year:

Stage Manager	...	...	Mr. John Boyan.
Assistant Stage Manager	...	...	Mr. J. Valerie.
Acting Manager	...	...	Mr. Harold Boulton.
Committee	...	...	Mr. J. Hobday.
			Mr. J. C. Powell.
			Mr. B. J. Collyer.
			Mr. Bice.
Auditor	...	...	Mr. Bice.

The report for the past year shows that in addition to the Christmas performance in the Great Hall, entertainments were

given at Brooke House Asylum, and at the two convalescent homes at Swanley, Kettlewell, and Parkwood.

The club was unable to give any nurses' entertainments last year, mainly owing to the dilapidated condition of the scenery in the inquest room.

A committee meeting was held afterwards, at which the following gentlemen were elected members of the club:

Mr. H. B. Meakin. Mr. A. F. C. Pollard. Mr. Leslie Morris.

It was suggested that on the tickets for the Christmas entertainment it should be stated that the seats are not reserved, as on previous occasions visitors coming late had been disappointed by not finding reserved seats.

Note on Erysipelas.

By GODFREY LOWE, M.R.C.S., L.R.C.P.

THE effect of erysipelas on a sluggish wound is well known. As the attack dies away the raw surface becomes covered with healthy granulations, and healing rapidly occurs. A striking instance of this has lately occurred in my practice.

A maid-servant, aged 17, was arranging some clothes in front of a fire, when, by some means, the skirt of her print dress became ablaze. This occurred very early one morning in February. She rushed into the yard, where the flames, which by this time had attacked the whole of her back, were extinguished by a bucket of water being thrown over her by her energetic mistress. I mention these details because, considering the shock and the extent of the burns, it was the greatest wonder that the patient survived at all. The whole of the skin covering the backs of the thighs and buttocks as high as the waist, and over the scapulae and upper arms, was completely destroyed. The upper arms where the sleeves were rolled had especially suffered. The subsequent shock was extremely severe, the patient being completely collapsed; the pain of the parts which were burned in a lesser degree was so severe that constant doses of morphia (hypodermically) had to be given. Notwithstanding the difficulties of nursing—I having to do the whole of the dressings myself, accompanied by the fact that after the first two days the sphincter ani refused to act—it was a week before I could authorise the patient's removal to the hospital. She is still (October) an inmate of that institution, but the wounds are now nearly healed. A week after her admission to the hospital she was attacked by erysipelas—the temperature rose, and fluctuated between 103° and 104°, and the constitutional disturbance was very great. This, however, gave a marked impetus to the healing of the raw surfaces, which, since the separation of the sloughs, had appeared pale and flabby. Healing proceeded apace, and six weeks later another attack, this time not so severe, occurred; this again had a very marked effect on the healing surfaces. The patient has now quite recovered, the burnt surfaces are practically re-covered by skin and cicatricial tissue. No skin-grafting was done.

This case is remarkable in the first place for the fact that the patient survived the very severe shock of the extensive injuries, and the heroic means employed for extinguishing the flames; and secondly, for the healing over of such large surfaces without the need for skin-grafting. I am convinced that ordinary therapeutic applications would not have been sufficient to stimulate the growth of new tissue, and that the cicatrization was due to the excessive vascularisation and active tissue change which occurs in an attack of erysipelas.

I have thought this case worthy of report because I have heard of experiments whereby patients suffering from sluggish ulcers and wounds have been inoculated with pus from an erysipelatous wound, with the idea of promoting healing. I have heard also that extreme difficulty has been experienced in producing the desired effect, when pus and even the dressings from an infected wound have been placed upon the one it is desired to infect.

The 'Bahere Lodge, No. 2546.

AN Ordinary Meeting of the Lodge was held at Frascati's Restaurant on Tuesday, December 8th, Bro. Alfred Cooper, F.R.C.S.Eng., W.M., in the Chair. Drs. Horton-Smith, Gow, and Evans, with Messrs. Sloane and Perram, were admitted into Freemasonry; Bro. Hampton was advanced to the second degree, and Bro. Lance was raised to the third degree. Sixty members and visitors were present, of whom fifty afterwards dined together.

Appointments.

OLIVE, E. J. P., M.A., M.D.Cantab., F.R.C.S., appointed Honorary Surgeon to the Warneford Hospital, Leamington.

THOMPSON, H. E., M.B.Lond., M.R.C.S., L.R.C.P., appointed Junior House Surgeon to the Blackburn Infirmary.

DAVEY, ERNEST, M.R.C.S., L.R.C.P., appointed Medical Officer for the St. James's Third District of the Dover Union.

KINSEY, R. H., M.R.C.S.Eng., L.S.A., appointed Consulting Surgeon to the Bedford General Infirmary and Fever Hospital.

NASH, WALTER GIFFORD, F.R.C.S., appointed Surgeon to the Bedford General Infirmary, *vice* R. H. Kinsey, resigned.

SALMON, ALFRED L., M.R.C.S., L.S.A., appointed Medical Officer of the Workhouse and of the St. Clement District of the Truro Union.

BOYAN, J., M.R.C.S., L.R.C.P., appointed House Surgeon to the Western General Dispensary, Marylebone Road.

WINTER, E. S., M.R.C.S., L.R.C.P., appointed Assistant Medical Officer to the Grove Hall Asylum, Bow.

Examinations.

UNIVERSITY OF LONDON.—*M.B. Examination.*—1st Division.—M. W. Coleman, C. H. Drake, E. G. D. Drury, W. D'Este Emery. 2nd Division.—E. G. B. Adams, P. W. Brigstocke, A. R. J. Douglas, L. P. Huggins, J. Hussey, C. H. Langford, E. Pratt, G. B. Price, H. E. Thompson, A. B. Tucker, W. Wrangham.

HONOURS LIST.—*Medicine.*—1st Class.—Walter D'Este Emery, Scholarship and Gold Medal. 2nd Class.—L. P. Huggins. 3rd Class.—A. R. J. Douglas. *Obstetric Medicine.*—1st Class.—Walter D'Este Emery, Scholarship and Gold Medal, G. B. Price. 2nd Class.—M. W. Coleman, A. B. Tucker. 3rd Class.—A. R. J. Douglas, C. H. Drake, L. P. Huggins. *Forensic Medicine.*—2nd Class.—M. W. Coleman, Walter D'Este Emery. 3rd Class.—A. R. J. Douglas, A. B. Tucker.

COLLEGE OF SURGEONS.—*Final Fellowship.*—L. Giles, F. Grace, H. E. Harris, C. M. Hower, J. F. Nall, A. E. H. Pinch, W. M. Willis. *First F.R.C.S.*—J. B. Christopherson, W. D. Harmer, H. Vaughan Pryce.

Obituaries.

WILLIAM FISHER FAVELL, M.R.C.S., J.P.

In our last issue we announced the death of Mr. W. F. Favell, of Sheffield. With the exception of the last eighteen months, during which time he has been confined to his room, Mr. Favell occupied for many years an active and leading position in Sheffield.

He was a man of fine presence, erect, tall, and well-proportioned, with strong, well-cut features. Perhaps the first and strongest impression one received from him was that he was a man of considerable breadth of character. And this was indeed the case. His judgment, tact, and sound knowledge of affairs obtained for him, both publicly and privately, a great influence in Sheffield and its neighbourhood. He was a good speaker, with an easy and graceful style, and there was about him a certain warmth and cheerfulness of manner which particularly endeared him to his patients. Children seem to have made an especial favourite of him.

Mr. Favell was born in 1832. The family had lived for many generations in Sheffield and the neighbouring midlands. A good number of the Favells had been members of the medical profession. Mr. Favell studied medicine first at the Sheffield Medical School, and then at St. Bartholomew's. After qualifying in 1853 he joined his father in practice in Sheffield.

In 1858 he was elected Surgeon to the Infirmary, and he held the

appointment for thirty-five years. Increasingly during this time he became a strong support to this institution, for, apart from his professional work, by his influence with wealthy patients, and in the town generally, he was able at various times to assist its funds.

As a surgeon Mr. Favell was a careful operator, and although in later times his practice did not allow him time to enter fully into the more recent developments of surgery, he was quite open-minded towards them, and was quite willing, when his colleagues desired it, to put them into practice. On his retirement in 1893 the Governors of the Infirmary decided to make some public recognition of his long and eminent services.

A sum of £940 was raised with the object of placing a portrait of Mr. Favell in the Board Room of the Infirmary. The presentation of the painting was made by the Duke of Norfolk at a meeting in the Cutlers' Hall; the meeting was an eloquent testimony to the position of Mr. Favell among the townsmen. At the time of his retirement also he was elected Consulting Surgeon to the Infirmary.

Mr. Favell took an active interest in professional affairs; he occupied the post of President of the Sheffield Medico-Chirurgical Society, and, at its meeting in Sheffield, was President of the Yorkshire Branch of the British Medical Association. In 1890 he was elected President of the Medical School, and became the recognised leader of the profession in Sheffield. He was very enthusiastic in support of the scheme for the amalgamation of the Firth College and the Medical School, and for their incorporation in the Victoria University. He was nominated as one of the Vice-Presidents of the proposed University College. In 1888, at an election, Mr. Favell was returned as a member of the Town Trustees. In 1890 his name was added to the Commission of the Peace; he was very regular in his attendance on the Bench.

He married in 1861, but two years later Mrs. Favell died, leaving one child, a daughter.

His funeral on November 3rd was largely attended by representatives from the various bodies with which he was connected, by his professional brethren, and by the public.

E. LAWSON PAWLETT.

WE have, with a feeling of deep regret, to record the death of Mr. E. Lawson Pawlett at the Essex County Asylum, Brentwood, on October 18th, at the early age of twenty-four. As many of us know, he was ward in Matthew in the spring of this year for pleurisy; when he became convalescent he went to Brentwood to take the *locum* at the Asylum.

He regained much of his former health, but early in September he developed broncho-pneumonia, followed three weeks later by typhlitis, to which he succumbed.

Both among the members of the staff with whom he came in contact and his colleagues he was much esteemed, and his death was felt as a real loss by all who knew him.

The funeral took place at Brentwood on the 21st, the number of floral tributes being very large, many of them coming from his former colleagues.

Reviews.

BACTERIOLOGY AND INFECTIOUS DISEASES. CROOKSHANK. Fourth Edition. Lewis, London.

In reviewing a work of over 700 pages it is well to define one's standpoint. The beginner in bacteriology soon inquires, "What is the best book to read?" The physician who has a slight acquaintance with bacteriological procedure wishes to have a book to which he may refer on matters of current dispute. Let us, then, consider if the beginner and the physician can be recommended to purchase this book.

It is not uncommon for the beginner, who has washed frequently and passed many times through the flame with success, to find at last his fortitude checked by the process of "flagella" staining. On page 90, eight methods or modifications for staining flagella are described without any comment or hint as to which is the most satisfactory. In describing Löffler's method we find the statement, "For some bacteria it is necessary to modify the solutions either by the addition of acetic or sulphuric acid, or by varying the quantity of soda solution," but no idea is given of the strength of these solutions. Also under Van Ermengem's method we find no mention of the strength of the solution of silver used. These to a beginner are surely fatal omissions. On page 105 we find a familiar picture, which we have always considered to be a picture of an unnecessary procedure (*viz.* inversion of the tube to be inoculated), whereas on page 108 we find the picture of a quite

adequate procedure, which justifies us in considering the former unnecessary. It is better not to confuse the beginner in this way, as he sooner or later inverts liquid cultures, much to everybody's discomfort.

We think the difficulty of making agar-agar plate cultivations is exaggerated. The method is a very important one,—as, for instance, in making a rapid diagnosis of a suspected cholera case. Provided the beginner makes certain that there is no opacity in the melted agar, there should be no danger of inequalities in the plate, and with subsequent inversion of the plate a successful result can readily be obtained.

The method described for preparing nutrient gelatine is that of a meat infusion gelatine, but a meat decoction gelatine is more rapidly made, and equally good.

For preparing nutrient agar it is recommended to soak the agar in salt water overnight, but an equally efficient and more rapid method is to soak the agar in dilute acetic acid for twenty minutes, and it is quite unnecessary to filter the agar through flannel.

Rapidity of manufacture is often demanded, and simplicity must appeal especially to the beginner, and to those of whom there are still many, who have not been trained in laboratories. The busy practitioner need not possess an ice-pail or ice-cupboard (p. 100) in order to make excellent gelatine.

The elaborate instructions (they might suffice for a major surgical operation) given for making potato cultures would tend to confirm the beginner in his belief that he must always be sterilising something, frequently with the result that when the essential time comes for having an instrument sterile, it is forgotten, so much has already been expended in "ritual."

We have referred to the various pages in the index given under Gram's method, but nowhere have we found any statement as to the object of this special method, nor any classification of common bacteria, according as they do or do not stain in this way. Friedlander's bacillus, moreover, does not stain with Gram, though on page 235 this method is given. For page 296 in the index, under Weigert, we think *g6* should be read.

We have selected such points as these for criticism, because they illustrate the difficulty of attempting in a general treatise what can be best done in a special practical work. Detail in a method is frequently of the greatest importance, and in bacteriology as in other kindred sciences, we consider it will be found best in books to separate "practical" from "theoretical" matter.

These points, however, may be considered of minor importance. Let us now consider the physician who is interested in bacteriological problems, and who may conduct investigations in his spare hours. Suppose he wishes to isolate typhoid bacilli from the viscera of a typhoid patient, or from the urine or stools during life. He is left completely in the dark as to how he should proceed, and certainly would not succeed in the case of the stools if he relied simply on his general knowledge of procedure. This, again, is an illustration of how in practical matters this work is deficient. No mention is made of Elsner's potato-gelatine method, though it is described in works published previously to this. Let us leave this practical matter aside, and consider now how the subject of typhoid fever and the typhoid bacillus is treated.

Typhoid fever is most inadequately dealt with in one and a half pages!

Of the infection of the bone-marrow, of the lungs, of the occurrence of the bacillus in post-typhoidal ulcerations and inflammatory lesions, we find no mention; nor will the physician be content when told on page 64, in a different chapter, that "an antitoxic serum has been obtained by Chantemesse." A treatise on bacteriology should provide an adequate explanation or discussion of the principles upon which such a serum treatment has been founded. To the bacillus four short pages are given, with two plates on page 344, which are in no wise characteristic. In this brief description is wedged in the *Bacillus coli-communis*, and scant treatment it receives. It is not at all clearly pointed out that a *Bacillus coli* may give all the "negative" reactions of typhoid, so that not infrequently the common tests are of no use; but although an illustration of typhoid flagella after Fränkel-Pfeiffer is given, there is none of the flagella of *B. coli*—an important omission, for it is now becoming recognised that this is the most certain difference between the two bacilli, viz. the number of flagella.

The whole question of *B. coli* is a complex one, and is practically left unconsidered. Its distribution, its occurrence in water, its hygienic importance, the large question of its varieties, are not so much as mentioned, not to speak of adequate discussion. Let us refer to a practical matter again. On page 148 we find Parietti's method for isolating typhoid bacilli from water described, and we

find the remarkable statement that "a few drops of the suspected water are added to the broth, and if it becomes turbid in a day or two the typhoid fever bacillus is present in the form of a pure culture." The sanitarian or physician who has taken a country house for the holiday ought surely to know that other bacteriologists use this method for separating pure cultures of *B. coli* or varieties of *Proteus*. Inadequate is too mild an expression to apply to this treatment of the detection of typhoid bacilli in water.

The questions of filtration, water analyses, the interpretations of the results of the latter, are at the present time matters of common interest. Filtration is not even alluded to; water analysis is imperfectly treated in four and a half pages; and we find that "the detection of *Bacillus coli-communis* may be taken to indicate probable contamination with human excreta," a statement which the most ardent supporters of this opinion would not now make without much qualification.

Let us pass to diphtheria, a subject to which the physician would naturally turn for a discussion of bacteriological views. On page 330 we find the statement that diphtheria bacilli are not found in the blood or in the internal organs. American, German, and English observers all agree that this statement is contrary to fact. What are the author's views about the *pseudo-diphtheria* bacillus? We have been unable to decide if he possesses any; in fact, we meet here, as in the case of typhoid, slight appreciation of the difficulties of the questions. It is not sufficient to say that Escherich maintained that the reaction of the bacilli to litmus broth was a distinguishing feature; not only do other observers contradict this; and our own experience goes to show that Escherich's position cannot be held; but first a definition of the *pseudo-diphtheria* bacillus should be given; and secondly, in order to understand the difficulty, the great variability of the diphtheria bacillus should be pointed out.

We have stated that filtration problems are not considered; we have pointed out practical deficiencies; and through some strange oversight, in an appendix where such objects as test-tube stands and desiccators are unnecessarily described, we find no mention of the Pasteur-Chamberland or Berkefeld filters.

In its treatment of typhoid fever and diphtheria, in our opinion the book is deficient. The same defect is noticeable in cholera, bacteriological questions belonging to which are even more difficult, and round which controversy has been fierce. But the same method is pursued, the isolated statements of various observers follow one another casually; there is no attempt at a critical appreciation of the controversy. Cunningham's work on the variability of the comma bacillus is not alluded to, Gruber's test, Pfeiffer's test, and Bordet's test *in vitro* are all absent; the subject is imperfectly understood.

But if these be deficiencies, there are still greater. In our opinion, laying aside these matters we have simply alluded to, the most conspicuous failure in the book is to be found in chapter v, where the subject of immunity, so complex and of such practical import, is gossiped about in six pages. We use the expression "gossiped" with intention, for in the *Nineteenth Century*, some years ago, the subject was similarly treated from the popular point of view, even at greater length than we find here, but quite as effectively.

It would have been well to omit the subject entirely, and ignore it as so much else in this work. We stated at the outset the standpoint from which we looked at this book.

The parts of the book that we have not considered have been what we may call the "veterinary diseases." If this work were reduced by a half to three quarters in size, we think it might be of value as an elementary work on infectious diseases in animals, discarding its present far too comprehensive title, though even here we have noticed in passing that the mortality from rabies previous to the Pasteur treatment is not mentioned, and Nocard's important results on the value of tetanus antitoxin as a preventive treatment are ignored. We can only trust that the veterinarian's opinion of the book is not as unfavourable as our own.

A MANUAL OF INFECTIOUS DISEASES. By E. W. GOODALL, M.D., and J. W. WASHBOURN, M.D. London: H. K. Lewis, 1896. Demy 8vo., pp. 368, price 15s.

We looked forward with interest to the publication of this work. Such a book was needed, and, by two such authorities as Dr. Goodall and Dr. Washbourn, we felt that full justice would be done to the subject. Nor were our anticipations disappointed. The book throughout is thoroughly practical, and the subject—always an irksome one to medical students—is presented in a most attractive manner.

The book consists of twenty chapters, the first four of which are

devoted to general matters. Thus, in Chapter I, fever in general is discussed; and here, while commending the minor position that the authors assign to the temperature in fever, both in its treatment and as an explanation of the various symptoms met with, we could yet have wished for fuller remarks upon the known or suspected heat-regulating mechanism. Chapter II deals with contagion and infection, and contains a very considerable amount of bacteriological information, both theoretical and technical. Special praise, we think, is due for the thorough manner in which the bacteriological aspect of the subject has been approached. This is manifest not only in this chapter, but throughout the book, and again at the end, where in Appendix I are several formulæ for staining-solutions, while Appendix IV deals with the Report of the Medical Superintendents of the Fever Hospitals of the Metropolitan Asylums Board on the use of antitoxic serum in the treatment of diphtheria. In addition, there are five capital plates of photographs illustrating the micro-organisms of diphtheria, influenza, typhoid fever, erysipelas, and anthrax. Chapter III is on disinfection, and describes the methods upon which most reliance may be placed.

Strong doubts are laid upon the germicidal value of sulphur dioxide; and here we note with satisfaction that three pounds of sulphur are stated to be required for every 1000 cubic feet of air space, instead of one pound, as usually given in treatises on Hygiene. Chapters IV and V should prove most useful to the beginner, the former describing, as it does with clearness, the several rashes simulating those of the specific fevers, while the latter is devoted to sore throat. The remaining fifteen chapters embrace the specific diseases—scarlatina, diphtheria, measles, rubeola, smallpox, vaccinia, chicken-pox, whooping-cough, mumps, epidemic influenza, typhus, relapsing and enteric fevers, erysipelas, and anthrax. Their treatment in some instances seems to us somewhat scanty, more especially is this the case in typhoid fever; and here we must take exception to the stringent rule which the authors lay down as to the date of removal of the patient from his abode. To say that, on account of the risk of perforation, he is never to be removed to a hospital after the close of the first week of the disease may be ideal, but we fear the rule must often be infringed. The largest number of pages have been allowed to scarlet fever and diphtheria—to the former 53, to the latter 55 pp.; next come smallpox and vaccinia with 42 pp., while 40 pp. are devoted to enterica. We entirely agree with the attitude taken up by the writers upon the vexed question of the meaning of the word "*croup*" in relation to diphtheria.

The distribution of the rashes of the various fevers are well illustrated, and in a novel manner, by the introduction of diagrams, of which there are fifteen. There are several temperature charts, mostly taken from actual cases under the care of the authors. And, in addition to the two appendices above referred to, are two others; one deals with the rules of the Metropolitan Asylums Board relating to the removal of patients suffering from infectious diseases, while the other consists of a useful table showing the incubation periods and dates of eruption, &c., of the most common infectious diseases.

We have read the book with pleasure, and can with confidence recommend it to students, for whose use it was chiefly designed; thereby, however, by no means implying that its sphere of usefulness will be confined to them alone.

Correspondence.

To the Editor of St. Bartholomew's Hospital Journal.

THE NOMENCLATURE OF THE WARDS.

DEAR SIR,—Will you allow me to congratulate Mr. Howard Clarke upon his most interesting paper in the November issue of the JOURNAL on "The Nomenclature of some of the Wards"? Mr. Clarke has made a little slip in regard to the date of Stanley's birth. He was born the son of Edward, 3rd July, 1793. The error is a slight one, but it is in danger of being perpetuated, as in some of the authorities I consulted when writing a short account of this surgeon for the "Dictionary of National Biography" I found that the year was wrongly given as 1792, and Mr. Clarke has no doubt been misled by them.

I am, yours very truly,

D'ARCY POWER.

105, Chandos Street, Cavendish Square, W.;

November 21st, 1896.

To the Editor of St. Bartholomew's Hospital Journal.

THE SEXUAL SENSE AND THE X RAYS.

DEAR SIR,—In January or February, 1896, it struck me that in the then recently discovered X rays, we had an explanation of the sexual sense of moths. Such a sense had long been suspected, but the medium by which it was conveyed has never been determined, because it seemed to penetrate such things as wooden boxes, and material through which neither light nor matter could pass. If then the female moth gives out these rays, it is possible that the male has organs of sensation capable of receiving these rays, perhaps situated on the antennæ.

This theory I had long intended putting to the test, but owing to the difficulty of obtaining time and material I have hitherto been unable to make the experiment.

If any readers of the ST. BARTHOLOMEW'S HOSPITAL JOURNAL have time and opportunity to make the experiment, I should be glad to hear of the result.

It would not be difficult to determine whether the female moths emanate rays which affect a photographic plate through material opaque to ordinary light.

There is one other point which struck me, and that is that the light of the glowworm was due to these rays emitted by the glowworm, and acting on some phosphorescent substance which the glowworm carries. This would, of course, indicate the evolution of the sexual sense from a sense acting through the X rays to a sense acting through light rays.

W. F. LLOYD.

December 2nd, 1896.

To the Editor of St. Bartholomew's Hospital Journal.

SISTER MAGDALEN FUND.

DEAR SIR,—During the past month the following donations have been received on behalf of Mrs. Boyce (late Sister Magdalen), who again asks me to express her sincerest thanks to her friends for their kind assistance.—Yours faithfully,

EDGAR WILLETT.

	£	s.	d.		£	s.	d.
Amount already ac-				J. H. Manuel, Esq. ...	0	10	0
knowned	45	1	6	Miss Annie Brown ...	0	2	6
J. F. Steedman, Esq. ..	1	1	0	Miss Bristow.....	0	2	6
John Adams, Esq. ...	0	10	6				
P. H. Dunn, Esq.....	0	10	6	Total.....	£48	9	0
F. W. Strugnell, Esq. 0	10	6					

Births.

BAKER.—On November 28th, at 5, Gledhow Gardens, South Kensington, the wife of C. Ernest Baker, M.B.Cantab., F.R.C.S. Eng., of a daughter.

BURGESS.—On September 10th, at Wagga Wagga, N.S.W., the wife of T. W. Burgess, M.R.C.S., L.R.C.P., L.S.A., of a son (Thomas Whitley).

HOUGHTON.—On December 1st, at The Chalet, Lindfield, Sussex, the wife of Philip A. Houghton, of a daughter.

Marriage.

DE SEGUNDO—BASTOW.—On November 21st, at St. Bartholomew's the Great, Smithfield, by the Rev. Sir Borradaile Savory, Bart., Rector, assisted by the Rev. W. Hind, Charles Sempill de Segundo, M.B., B.S.Lond., to Gertrude Lucy, third daughter of the late T. W. Bastow, of Plymouth.

ACKNOWLEDGMENTS. — Guy's Hospital Gazette, St. Thomas's Hospital Gazette, St. George's Hospital Gazette, St. Mary's Hospital Gazette, Magazines of the London School of Medicine for Women and Royal Free Hospital, The Nursing Record, The Hospital, The Charity Record.